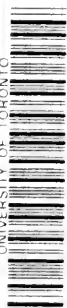
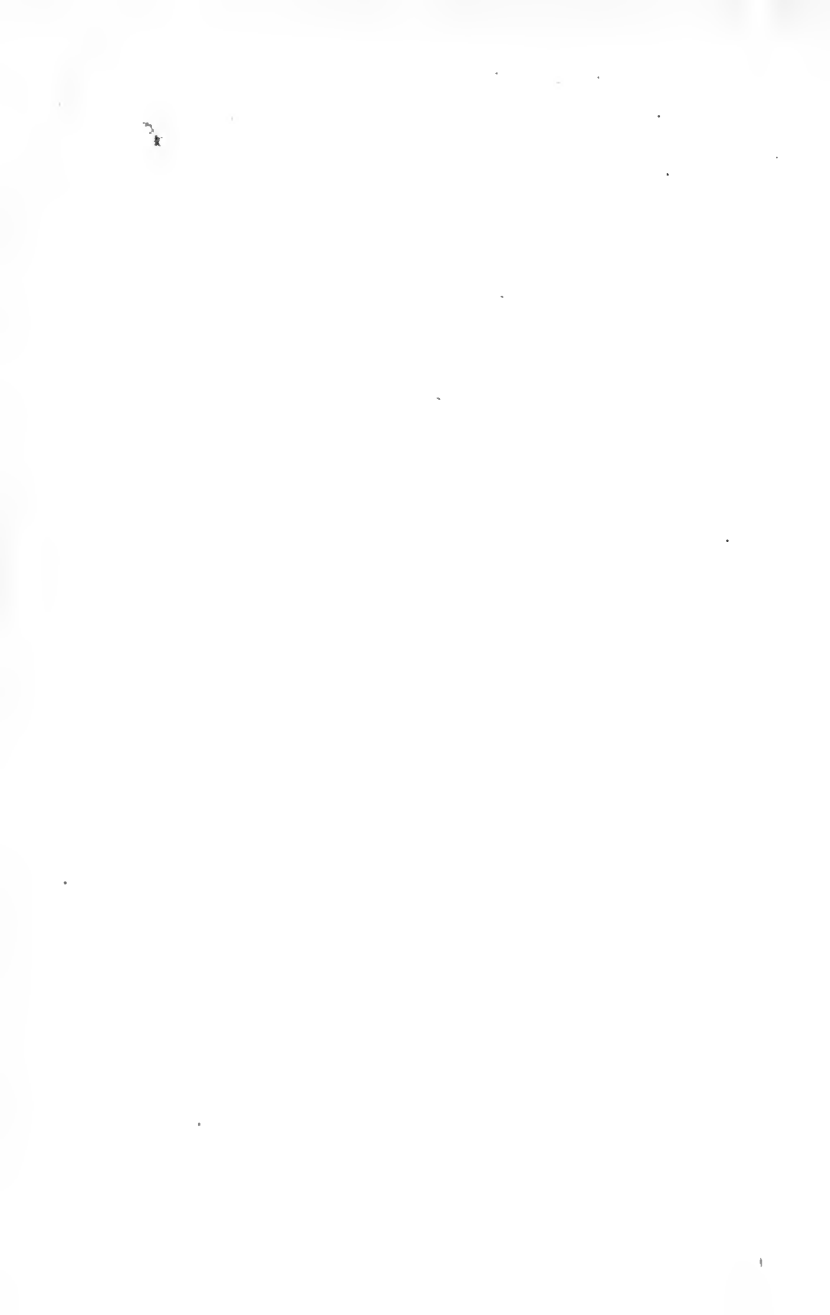
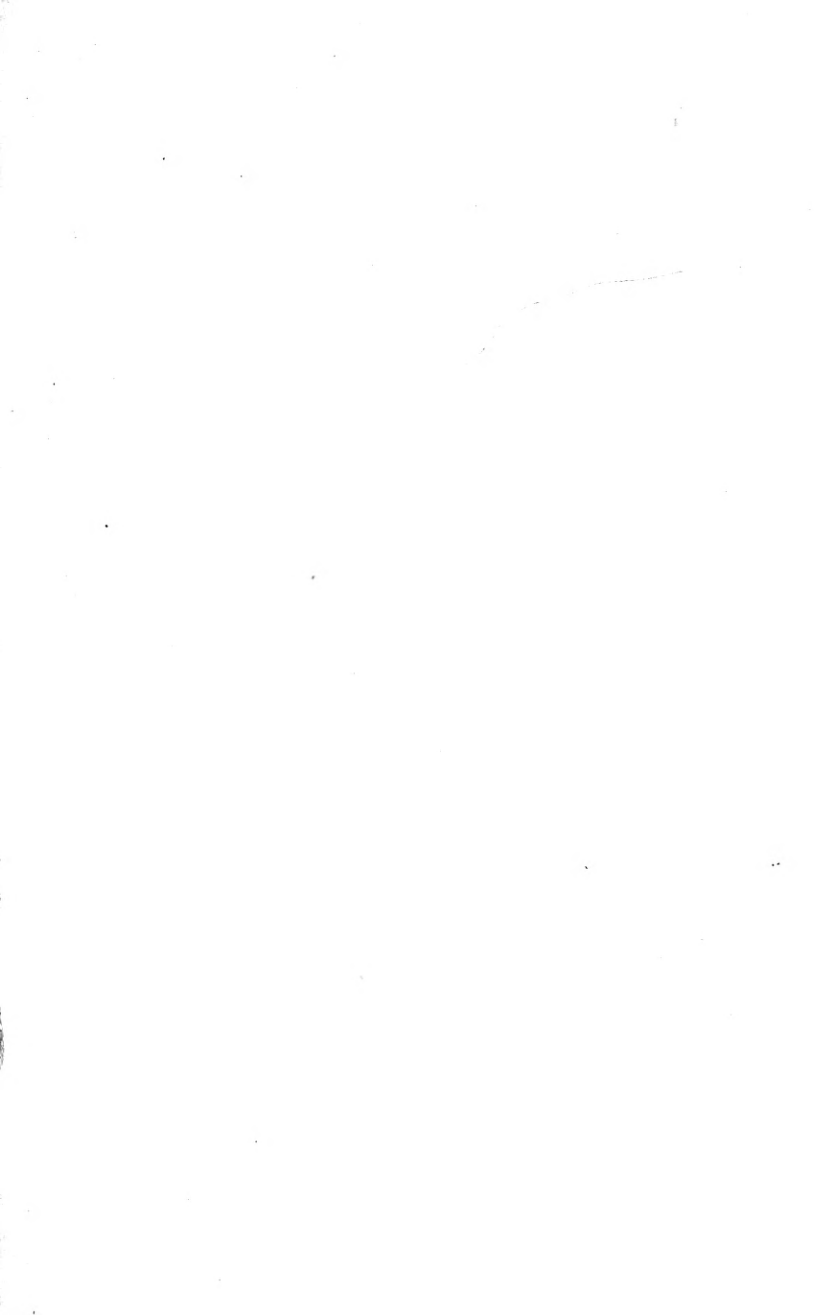


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SOCRATES

1986.3

A BEGINNER'S HISTORY OF PHILOSOPHY

BY

HERBERT ERNEST CUSHMAN, LL.D., PH.D.

Sometime Professor of Philosophy in Tufts College

Lecturer of Philosophy in Harvard College

Lecturer of Philosophy in Dartmouth College

VOL. I

ANCIENT AND MEDIÆVAL PHILOSOPHY

Revised Edition



HOUGHTON MIFFLIN COMPANY

BOSTON • NEW YORK • CHICAGO • DALLAS

SAN FRANCISCO

The Riverside Press Cambridge

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The Riverside Press
CAMBRIDGE . MASSACHUSETTS
PRINTED IN THE U.S.A.

TO
GEORGE HERBERT PALMER, Litt.D., LL.D.
ALFORD PROFESSOR OF PHILOSOPHY
IN HARVARD UNIVERSITY
WHO HAS INTERPRETED LIFE TO
MANY YOUNG MEN BY MAKING
PHILOSOPHY A LIVING
SUBJECT TO THEM

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PREFACE

THIS book is intended as a text-book for sketch-courses in the history of philosophy. It is written for the student rather than for the teacher. It is a history of philosophy upon the background of geography and of literary and political history.

As a text-book for sketch-courses it employs summaries, tables, and other generalizations as helps to the memory. The philosophical teaching is presented as simply as possible, so as to bring into prominence only the leading doctrines. My own personal criticism and interpretation on the one hand, and explanations in technical language on the other, have been avoided as far as possible. Sometimes I have had to choose between interpretation and technicality, in which case the limitations of space have determined my choice. Since the book is intended for the student rather than for the teacher, it makes the teacher all the more necessary; for it puts into the hands of the student an outline and into the hands of the teacher the class-room time for inspiring the student with his own interpretations. In making use of geographical maps, contemporary literature, and political history, this book is merely utilizing for pedagogical reasons the stock of information with which the college student is furnished when he begins the history of philosophy.

A good many years of experience in teaching the history of philosophy to beginners have convinced me that students come to the subject with four classes of

ideas, with which they can correlate philosophic doctrines: good geographical knowledge, some historical and some literary knowledge, and many undefined personal philosophical opinions. Of course, their personal philosophical opinions form the most important group, but more as something to be clarified by the civilizing influence of the subject than as an approach to the subject itself. The only "memory-hooks" upon which the teacher may expect to hang philosophic doctrines are the student's ideas of history, literature, and geography. If the history of philosophy is treated only as a series of doctrines, the student beginning the subject feels not only that the land is strange, but that he is a stranger in it. Besides, to isolate the historical philosophical doctrines is to give the student a wrong historical perspective, since philosophic thought and contemporary events are two inseparable aspects of history. Each interprets the other, and neither can be correctly understood without the other. If the history of philosophy is to have any significance for the beginner, it must be shown to give a meaning to history.

So far as the materials that form any history of philosophy are concerned, I have merely tried to arrange and organize them with reference to the student and with reference to the history of which they form an integral part. I am therefore overwhelmingly indebted to every good authority to whom I have had access, but in the main I have followed the inspiring direction of the great Windelband. Many willing friends have read parts of the manuscript and offered suggestions and criticisms. I am particularly indebted to Professors C. P. Parker, Ephraim Emerton, A. O. Norton, and J. H. Ropes, and Dr. B. A. G. Fuller of Harvard University;

to Professor Mary W. Calkins of Wellesley College; to Professors C. S. Wade and D. L. Maulsby of Tufts College; and to my wife, Abby B. Cushman. However, for all the faults of the book, which has been many years in preparation, I am alone responsible.

Instead of lists of books for collateral reading, placed at the end of chapters or of the book, the student will find references in the footnotes to the exact pages of many helpful books. I should like to call the student's attention to an appendix to the discussion of Plato. This is a complete selection of passages from Plato made by the late Professor Jowett for English readers. This selection Professor Jowett was accustomed to distribute to his Oxford class, of which I was once fortunate to be a member.

Philosophical terms have been defined either in the text or in the footnotes. Such definitions must necessarily have as their aim their usefulness to the student, rather than their completeness.

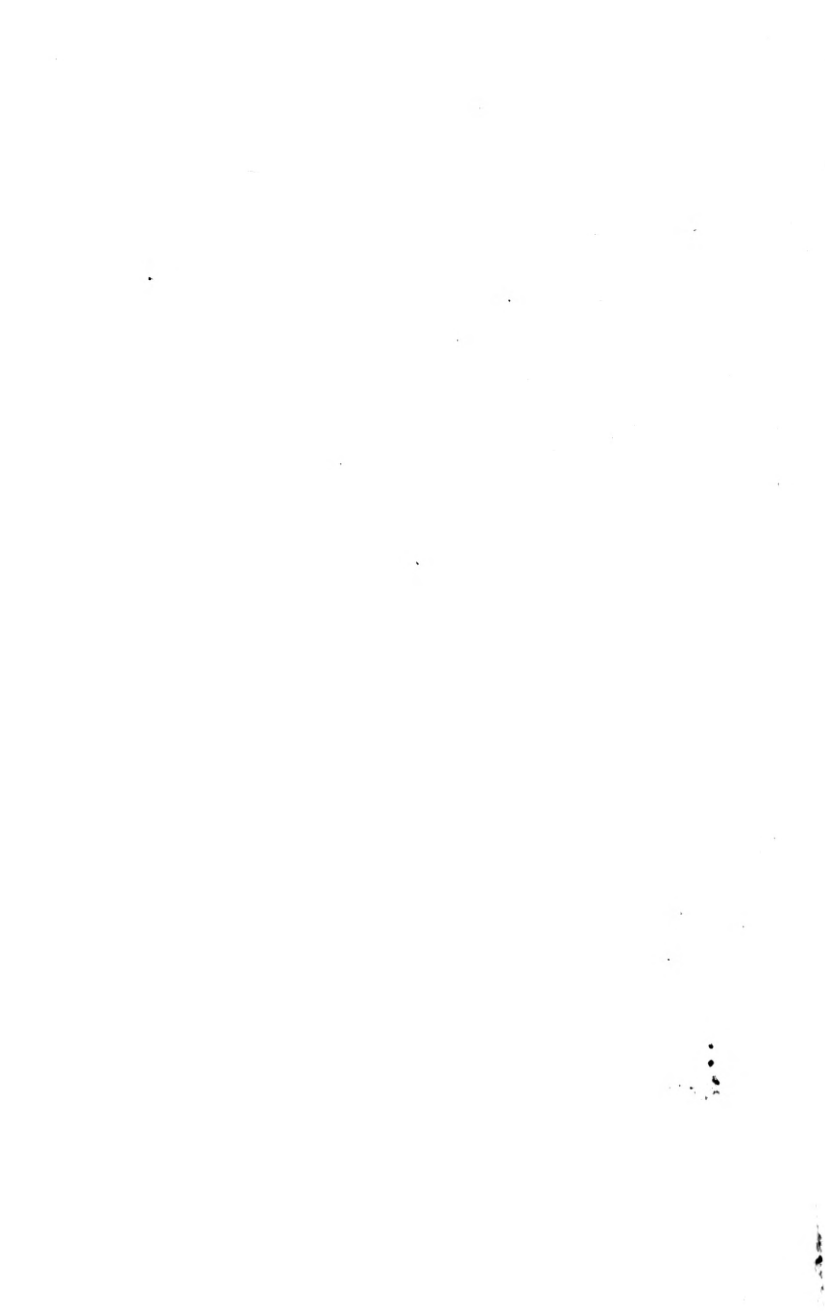
TUFTS COLLEGE, June, 1910.

PREFACE TO THE REVISED EDITION

THE only change which the reader will find in the revision of this volume is in the form of presentation of the philosophies of the earlier cosmologists (Chapter II).

HERBERT E. CUSHMAN.

WEST NEWTON, February, 1918.



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A BEGINNER'S HISTORY OF PHILOSOPHY

INTRODUCTION

THE THREE GENERAL PERIODS OF THE HISTORY OF PHILOSOPHY

The Comparative Lengths of the Three General Periods:

Ancient Philosophy, 625 B. C. – 476 A. D.

Mediaeval Philosophy, 476 A. D. – 1453 A. D.

Modern Philosophy, 1453 A. D. – the present time.

These are the three general periods into which the history of philosophy naturally falls. The two dates that form the dividing lines between these three periods are 476, the fall of old Rome, and 1453, the fall of new Rome (Constantinople). From this it will be seen that 1000 years of mediæval life lie between antiquity on the one side and 450 years of modern times on the other. Whatever value may be put upon the respective intellectual products of these three periods, it is important to note the great difference in their time-lengths. It is 2500 years since philosophical reflection began in Europe. Only 450 of these years belong to modern times. In other words, after the European man grew to reflective manhood, two fifths of his life belong to what is known as ancient civilization, two fifths to mediæval, and only one fifth to modern civilization.

The Real Differences of the Three General Periods.
The differences between these three periods of the re-

flective life of the European have been very real. They are not to be explained by merely political shiftings or economic changes; nor are they fully expressed as differences in literary or artistic productions. Their differences lie deeper, for they are *differences of mental attitude*. The history of philosophy is more profound, more difficult, and more human than any other history, because it is the record of human points of view. A good deal of sympathetic appreciation is demanded if the student takes on the attitude of mind of ancient and mediæval times. One cannot expect to be possessed of such appreciation until one has traversed the history of thought through its entire length.

The history of philosophy is an organic development from an objective to a subjective view of life, with a traditional middle period in which subjective and objective mingle. Ancient thought is properly called *objective*, the mediæval *traditional*, the modern *subjective*. Can we briefly suggest what these abstract terms mean? By the *objectivity of ancient thought* is meant that the ancient, in making his reflections upon life, starts from the universe as a whole. From this outer point of view he tries to see the interconnections between things. Nature is reality; men and gods are a part of nature. Man's mental processes even are a part of the totality of things. Even ethically man is not an independent individual, but the member of a state. When the ancient came to make distinctions between mind and matter, he did not think of man as the knower in antithesis to matter as the object known, but he thought of mind and matter as parts of one cosmos. The antithesis in ancient thought is rather between appearances and essence, between non-realities and

realities with differing emphasis. The ancient attempts speculatively to reconstruct his world, but it is always from the point of view of the world.

By the *traditionalism of mediæval thought* is meant that men are controlled in their thinking by a set of authoritative doctrines from the past. In the Middle Ages, as the mediæval period is called, the independent thinking of antiquity had ceased. Men reflected and reflected deeply, but they were constrained by a set of religious traditions. Authority was placed above them and censored their thinking. The objective Christian church and its authority took the place of the objective Greek cosmos. That church had certain infallible dogma, and thinking was allowed only in so far as it clarified dogma.

On the other hand, when we say that *modern thought is subjective*, we refer to an entire change in the centre of intellectual gravity. The starting-point is not the world, but the individual. The universe is set over against mind (dualism), or is the creation of mind (idealism). In any case the modern man looks upon the universe as his servant, the standard of truth to be found in himself and not in something external. The subject as knower is now placed in antithesis to the object as known, and the object is not independent of the human thinking process. Reality is man rather than the cosmos. The political state is justifiable so long as it enforces the rights of the individual; religious authority is the expression of the individual conscience; physical nature is a human interpretation.*

* Read Knight, *Life and Teaching of Hume*, pp. 102 f. (Blackwood Series); Falckenberg, *Hist. Modern Phil.*, p. 10; Zeller, *Pre-Socratic Phil.*, vol. i, pp. 161 f.

Plato, Dante, and Goethe are good representatives of these three different historical periods of the human mind. How can they be understood without a philosophical appreciation of the periods in which they lived?

Table of the Subdivisions of the Three General Periods of Philosophy

1. Ancient 625 B. C. -476 A. D.	{ Greek, 625-322 B. C. (to death of Aristotle).	Cosmological, 625-480 (to Persian Wars).
		Anthropological, 480-399 (to death of Socrates). Systematic, 399-322 (to death of Aristotle).
	{ Hellenic-Roman 322 B.C.-476 A. D. (from death of Aristotle to fall of old Rome).	Ethical, 322 B. C.-1 A. D. (to beginning of Christian era).
		Religious, 100 B. C.-476 A. D.
2. Mediæval 476-1453	{ Early Mediæval, 476-1000 (from the fall of old Rome to the beginnings of modern Europe). Transitional Mediæval (1000-1200), (from beginnings of modern Europe to Crusades). Classic Mediæval, 1200-1453 (from the Crusades to the fall of new Rome or Constantinople).	
3. Modern 1453-mod- ern times	{ Renaissance, 1453-1690 (to Locke's Essay and the English Revolution).	Humanistic, 1453-1600.
		Natural Science, 1600-1690.
	{ Enlightenment, 1690-1781 (from Locke's Essay to Kant's Critique). German Idealism, 1781-1831 (from Kant's Critique to the death of Hegel). Evolution, 1820 to the present time.	

BOOK I

ANCIENT PHILOSOPHY (625 B. C.—476 A. D.)

CHAPTER I

THE EARLY GREEK IN ANCIENT PHILOSOPHY

The Divisions of Ancient Philosophy. The history of ancient philosophy falls naturally into two large divisions: pure Greek philosophy and Hellenic-Roman philosophy (or Greek philosophy in the Roman world). The date, 322 B. C., the death of Aristotle, which marks the line between these two periods, is one of the milestones of history. Alexander the Great had died in 323 B. C. The coincidence of the deaths of Aristotle and Alexander not only suggests their intimate relations as teacher and pupil during their lives, but it throws into contrast Greek civilization before and after them. Before Aristotle and Alexander culture was the product entirely of the pure Greek spirit; after them ancient culture was the complex product of many factors — of Greek and Roman civilizations, and many Oriental religions, including Christianity. Before Aristotle and Alexander, ancient culture was characterized by a love of knowledge for its own sake, by freedom from ulterior ends either of service or of use; after these great makers of history, culture became attenuated to work in the special sciences and enslaved to practical questions. Before Aristotle and Alexander, the Greek city-states had arisen to political power; after Aristotle

and Alexander, Greece declined politically and was absorbed into the Roman empire.

The Literary Sources of Ancient Philosophy.* The literary sources of ancient philosophy are three: (1) the primary sources, or original writings; (2) the secondary sources, or reports of the original writers obtained indirectly, or through other writers; (3) the interpretations of reliable modern historians of philosophy. The specialist in philosophy will, of course, go to the first two sources for his information. Other students will find many accurate modern histories of ancient philosophy. The student should have at hand the translations of the histories of Zeller, Windelband, Weber, Eucken, Ueberweg; those of the Englishmen, Burnet and Fairbanks; of the Americans, Rogers and Turner.

“The writings of the early Greek philosophers of the pre-Socratic period exist now only in fragments. The complete works of Plato are still extant; so also are the most important works of Aristotle, and certain others which belong to the Stoic, Epicurean, Skeptic, and neo-Platonic schools. We possess the principal works of most of the philosophers of the Christian period in sufficient completeness.”¹ The secondary sources include quotations and comments upon earlier philosophers found in the writings of Plato, Aristotle, the Stoics, Skeptics, neo-Platonists, and the so-called doxographers. Doxography — the commentating upon and collating of the works of former times — developed enormously in Alexandria, Pergamos, and Rhodes just after Aristotle.

* Read Fairbanks, *First Philosophers of Greece*, pp. 263 ff., especially the résumé.

¹ Ueberweg, *Hist. of Phil.*, vol. i, p. 7.

The founder of this work was Theophrastus, who was a disciple of Aristotle and his successor in the Lyceum. Among the important doxographers were Plutarch, Stobæus, and Aetios.

The Environment of the Early Greek. The biologist seeks to explain a living creature by its previous environment and inherited instincts. So if we know the environment and inherited instincts of the early Greek, we shall be able to understand better firstly, why European philosophy began with the Greeks and not with some other people; and secondly, why Greek philosophy took certain lines that it did take.

(1). *His Geographical Environment.* The Greece into which philosophy was born was much larger than the Greece of to-day. Ancient Greece consisted of all the coasts and islands which were washed by the Mediterranean Sea from Asia Minor to Sicily and southern Italy, and from Cyrene to Thrace. The motherland, the peninsula of Greece, at first played an insignificant rôle. The leadership was in the hands of the Ionians, who had colonized the coasts of Asia Minor. In the seventh century B. C., when the first Greek philosophy appears, these Ionians commanded the world's commerce among the three continents. Over the coasts of the entire Mediterranean they had extended their trade and established their colonies. Miletus became the wealthiest of these colonies and the cradle of Greek science. Its wealth afforded leisure to its people and therefore the opportunity for reflection.

(2). *His Political Environment.* An understanding of the Greek political world, in which its first philosophy appeared, requires an historical explanation of its rise. It takes us back four centuries to the age of

the Epic (1000–750 B. C.). During more than two centuries of the age of the Epic two changes occurred which were to influence future Greek civilization: (1) The oligarchy which had supplanted the ancient patriarchal monarchy became firmly established; and (2) the Epic was formed. The importance of the Epic of Homer lies not so much in the fact that a great poem was constructed, as that it was the formulation of the Greek religion, the Greek æsthetic polytheism. Its writing indicates that the earlier unorganized, primitive, and savage forms of religion had given way, among the ruling classes at least, to an æsthetic polytheism, which in a general way was fixed by the Epic itself.

The period of more than a century, from 750 to 625 B. C., lying between the age of the Epic and Greek philosophy, may be called an age of political disturbances. The oligarchy had become oppressive to the rich and poor alike. There had grown up in Greece, especially in the colonies, a class of citizens who had become wealthy through commerce. The result of the misgovernment by the oligarchy was that (1) migrations took place, and (2) many revolutions occurred. This was particularly true of the colonies where the proletariat was powerful and the cities were full of adventurers. Plutocracy was at war with aristocracy, and this was the opportunity for bold men. These political troubles took form from 650 B. C. on, and the history of the Greek cities consists of the endeavor to establish popular government. About the time of the first Greek philosophers there arose here and there from the ruins of these civil struggles the so-called tyrants, of whom Thrasybulus at Miletus, Pittacus at Lesbos, Periander at Corinth, and Pisistratus at Athens are examples.

The courts of these tyrants became centres of intellectual life. They patronized poets, writers, and artists. The universalism of the Epic had vanished, and in its place came the individualism of the lyric and the satire. In many places the aristocrat went into gloomy retirement, and often cultivated poetry, science, and philosophy.

The Native Tendencies of the Early Greek. Why were the Greeks the first philosophers of Europe? Their geographical surroundings of sea and land had something to do with it. The passionate party strife between the old, ruling families of nobles and the newly rich trading-class, which took place during the seventh century B. C., no doubt cultivated an early independence of opinion and strength of personality. But, after all, genius was in the blood of the race, and who can say that the true cause was not in the mixing of the blood of the virile Aryan invaders with that of the aboriginal inhabitants? Whatever may be the answer to that question, the Greek race in the seventh century B. C. had an extraordinary curiosity about the world of nature. It loved the concrete fact as no other race of the time loved it, and it loved to give a clear and articulate expression to the concrete fact that it saw. It had an artistic nature that was hostile to all confusion. Let us point out three ways in which the Greek was even in this early time organizing his experiences, reflecting upon the workings of social and nature forces, and thus preparing the way for consideration of the more ultimate questions of philosophy.

(1) This can be seen first in the development of his religion. The first step in the organization of his religion we have already seen, for the Homeric epic

was the expression of a well-defined, poetic, and æsthetic polytheism developed out of a primitive savage naturalism. The Greek's sense of measure was shown in the way both gods and men were placed as a part of the world of nature. He could accomplish this the more freely because he had no hierarchy of priests and no dogma of belief to cramp his imagination. The Greek priests did not penetrate into the private life nor teach religion. "They were not theologians but sacristans and liturgical functionaries." In the fifty years before philosophy appeared, this tendency toward scientific religious organizing showed the beginning of another advance. Monistic belief, of which signs may be found even in the earlier Greek writings, came to the surface. This monism¹ was expressed or implied by the Gnostic poets, "wise poets," so called, because they made sententious utterances upon the principles of morality.

(2) The early genius of the Greek is shown in his reflections upon physical events. The Greek had been accumulating for a long time many kinds of information, but, what is more important, he had been reflecting upon this information. The Ionian was a sea-faring man. He had had much practical experience and had made many true observations about the things he had seen. In his travels he had come in contact with the Orientals and the Egyptians, and although his scientific conceptions were probably in the main his own, his

¹ Monism is the belief that reality is a oneness without any necessary implication as to the character of that oneness. Monotheism is a kind of monism, in which some definite character is ascribed to the oneness, like the active principle in the world or the cause of the world. Pantheism, on the other hand, is a kind of monism in which the emphasis is upon the all-inclusive character of reality. In pantheism God and nature are two inseparable aspects of reality.

knowledge was undoubtedly increased by his travels. In the seventh century B. C., the Greeks had a respectable body of physical science. It was mostly inorganic science, however, — astronomy, geography, and meteorology. The early Greek knowledge of organic phenomena was very meagre, as, for example, medical and physiological knowledge. They also showed little genuine research in the field of mathematics, although they had picked up mathematical information here and there. Many of the first philosophers were scientists.

(3) Not only did the Greek early bring a religious system out of the chaos of his naturalism, not only did he early throw his physical information into scientific form; but also early did he show an especial interest in human conduct. This can be seen first in Homer (800 B. C.), in a more developed form in Hesiod (700 B. C.), and with still deeper reflection in the Gnostic poets. Although the *Iliad* is a descriptive poem, it abounds in ethical observations. For example, Hector says, "The best omen is to fight for one's country"; and Nestor in council says, "A wretch without the tie of kin, a lawless man without a home, is he who delights in civil strife." The poem by Hesiod (*Works and Days*) is intended to teach morals. It is distinctly a didactic poem. Hesiod stands at the beginning of a long line of Greek ethical teachers. His moral observations are, however, incoherently expressed. They are not wide generalizations, but are only comments upon single experiences. The Gnostic poets appeared at the end of the seventh century B. C., as the moral reformers in the age of political disturbances. This period was called by the Greeks the age of the Seven Wise Men; for among the men who were then

exhorting the age to come back to its senses, tradition early selected seven of the most notable.¹ The spirit of Gnostic poetry was prominent in their reported sayings. They were fearful because of the common disregard of the conventions of the previous age, and because of the present excesses. Their watchword was "moderation," and they were ever repeating "nothing too much." By apothegm, riddle, epigram, and catchwords they tried to reform society. The names of all seven are not certain, and only four of them are known, — Thales, Solon, Pittacus, and Bias. Their ethical reflections are not concerned, as in Hesiod, with the home, the village, and the rules of convention, but with the individual's general relation to society. Their knowledge of ethical matters is remarkable for their time. Some of their sayings are as follows : —

"No man is happy ; all are full of trouble." "Each thinks to do the right, yet no one knows what will be the result of his doings, and no one can escape his destiny." "The people by their own injustice destroy the city, which the gods would have protected." "As opposed to these evils the first necessity is law and order for the state, contentment and moderation for the individual." "Not wealth, but moderation, is the highest good." "Superfluity of possessions begets self-exaltation."

The Three Periods of Greek Philosophy, 625–322

B. C. These are

1. The Cosmological Period, 625–480 B. C.
2. The Anthropological Period, 480–399 B. C.
3. The Systematic Period, 399–322 B. C.

¹ Bury, *Hist. of Greece*, p. 321, calls the tradition of the Wise Men a legend.

1. *The Cosmological Period* begins with the birth of Greek philosophical reflection (625 B. C.) and has a nominal ending with the Persian wars (480 B. C.). This does not mean that the interest of the Greeks in cosmology stopped in 480 B. C., but that it was no longer their prominent interest. Cosmology is the study of the reality of the physical universe (the cosmos). The particular cosmological question occupying the minds of the Greeks in this period may be stated thus: What, amid the changes of the physical world, is permanent? This will be seen to be a philosophical question and not the same as a question in natural science. The theatre of philosophical activity was the colonies and not the motherland. Two important aspects of this period must be considered besides the philosophical, — the political situation and the religious mysteries.

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2. *The Anthropological Period* begins in the motherland before the cosmological movement ended in the colonies. It starts with a great social impulse just after the victories of the Persian wars (480 B. C.) and ends with the death of Socrates (399 B. C.). Athens is the centre. This period includes the most productive intellectual epoch of Greece as a whole, although not its greatest philosophers. Socrates is the most striking personality in the period. The period is called anthropological, because its interest is in the study of man and not of the physical universe. The word anthropology means the study of man.

3. *The Systematic Period* begins with the death of Socrates (399 B. C.) and ends with the death of Aristotle (322 B. C.). Alexander the Great died 323 B. C. The period is called systematic because it contains the three great organizers or systematizers of Greek philo-

sophy. These were Democritus, Plato, and Aristotle. The spread of Greek culture beyond its own limits through the conquests of Alexander is of great importance for the history of thought in the Hellenic-Roman Period, which follows this period.

CHAPTER II

THE COSMOLOGICAL PERIOD (625-480 B. C.): THE PHILOSOPHY OF NATURE

WHEN we enter upon the one hundred and fifty years of philosophical beginnings of Greece, which are called the Cosmological Period, we find ourselves confronted with an extremely interesting social situation, which has been brought about partly by the political and geographical environment of the Greek, partly by his inherited genius. On the one hand, during this century and a half, the political troubles of the Greeks became increasingly aggravated by the growth of Persia on the east and of Carthage on the west. On the other hand, we find that the Greek religion took a sudden turn to mysticism, and by its side a slow but increasing interest in philosophical questions. All through this period Greek politics and Greek religion were a constant peril to Greek life. Greek philosophy proved to be its safety.

The Peril in the Greek Political Situation : Persia and Carthage. It must be remembered that the Greek cities never united into a nation. They were always fighting among themselves. We have already pointed out the civil disturbances between the oligarchy and the democracy throughout the land. These internal troubles continued to the end of Greek history. In this period there was added to these internal troubles a critical external situation which threatened the existence of Greece itself. The sixth century was a momentous one for Greece. In both the east and the west there

arose mighty empires that threatened to wipe out its civilization. "The expansion of the Persian power (on the one hand) had suspended a stone of Tantalus over Hellas, and it seemed likely that Greek civilization might be submerged in an Oriental monarchy."¹ Cyrus had laid the foundation of Persia by taking Media in 550 B. C., Lydia in 546 B. C., Babylonia in 538 B. C.; Egypt was added by Cambyases in 528 B. C.; and Darius organized the great Persian possessions in his long reign from 528 to 486 B. C. On the west, Carthage was threatening the Greek cities of Sicily, and at the close of this period was acting in conjunction with Persia to obtain possession of the Mediterranean.

The Peril in the New Religion: The Mysteries and Pythagoras. Already in the seventh century B. C. the political society of Greece felt that it was under the wrath of the gods because of some unatoned guilt. "The earth is full of ills, of ills the sea," sang the poet. Religious depression became universal. Dissatisfied with the old polytheism, especially as expressed in the theogony of Hesiod, the Greek in the sixth century B. C. began to interpret it according to his present need. Among the masses there appeared the craving for immortality and for personal knowledge of the supernatural. The desire to solve the mystery of life by a short road became universal. Men looked to rites to purify them from the guilt of the world and for gaining personal contact with the world of shades. This new religion became pan-Hellenic. It is called the Mysteries or the Orgia. By Mysteries is not meant societies founded on some occult intellectual belief, as the name might suggest. The Mysteries were based on cult (ceremony), and not on

¹ Bury, *History of Greece*, p. 311.

dogma. The special ceremonies were those of initiation and purification. They were supposed to purify the participant and put him in a new frame of mind. The soul would then be protected from the malicious spirits to which it was constantly exposed. The ceremonies are reported to have been attended sometimes by more than thirty thousand people. They consisted of processions, songs, dances, and dramatic spectacles. The most important of the Mysteries were the Orphic and the Eleusinian.

The Mysteries were the basis of the society of Pythagoreans. Pythagoras of Samos was a remarkable man, who went to Italy and settled at Crotona. His sect is of double importance to us because in later times it developed a philosophy on its mathematical and astronomical sides. Pythagoras and his immediate following must be distinguished from the later Pythagoreans. Pythagoras and the early Pythagoreans were not philosophers, but a sect like the Orphic society of Mysteries, yet the sect of Pythagoreans embraced much more in its scope. It tried to control the public and private life of its members and to evolve a common method of education.¹ Pythagoras was an exiled aristocrat, and his sect was an aristocratic religious body in reaction against the democratic excesses. The only doctrine upon which Pythagoras placed any emphasis was that of immortality in the form of metempsychosis (transmigration of the soul from one bodily form into another). The sect was dispersed as a religious body about 450 B. C. The scattered members formed a school of philosophy at Thebes until about 350 B. C.

¹ Burnet, *Early Greek Philosophers*, p. 104, for injunctions upon the private life of the early Pythagoreans.

Of these later philosophical Pythagoreans and their number theory, we shall speak in the proper place.

At the time of the dispersion of the Pythagoreans there existed no longer any peril from the new religion. The craze of the new religion was passing away. During the sixth century B. C. it was a great peril to the future intellectual life of Greece. Had it then gained a little more power it would probably have been admitted by the priesthood to the temples. In the exercise of such enormous sacerdotal power, the priests would have enslaved the Greek mind to superstition, and the priesthood in turn would have become an easy tool for tyrants. There would then have been no Socrates, no Plato, and no Aristotle. The Mysteries were a reaction toward asceticism as a religious salvation from the political peril, but they were, however, equally as great a peril to Greece. *The medium course along the line of a rational philosophy, which the Greek genius actually took, proved its salvation.*

Characteristics of the Cosmologists. There are certain characteristics of this early philosophy that should be noted at the beginning.

(1) All the Cosmologists were physical scientists, and with few exceptions their scientific views were noteworthy. Aristotle calls them physcists in distinction from their predecessors, whom he calls theologians.

(2) They often worked together in schools. Tradition has been common since Bacon that philosophy centres in individuals; but history shows that frequently the Greeks worked in corporate bodies. These philosophical scientists worked in schools; just as the Homeridæ developed the epic; the Dædalidæ, a group of the earliest artists, the secret of art; the Mysteries, reli-

gion. Philosophy now is in the cloister, and the intellect of the time speaks from its retreat from public life. While the Milesian school was undisturbed, owing to the long peace that Miletus enjoyed, we shall find that most of the philosophers of the Cosmological period were in retirement on account of political persecution.

We must remember that by "school" is not necessarily meant a group of pupils under the established instruction of a teacher. A school at this early period is a group of learned men at work on the same problems. Later on in history we shall find that one of the group more learned than the others stands in the position of teacher: for example, Plato in the Academy.

(3) All the Cosmologists were hylozoists. The etymological meaning of hylozoism is its true one — matter is alive. This is the fundamental characteristic of these pre-Socratics from Thales down to Anaxagoras, although some authorities contend that those from the time of Empedocles were not hylozoists. The meaning of hylozoism is simple enough, but the conception is a difficult one for the modern mind; for to-day we are accustomed to think of an impersonal nature under mechanical laws. To the Greek of the Cosmological period the substantial constitution of the universe is impersonal living matter; to us it is impersonal dead matter. Both these views are to be contrasted with the religious belief involved in Greek polytheism, in which the cosmos is conceived to be living personal spirits; this Homeric polytheism is again to be contrasted with the animism of the tribal period, in that it had organized into an æsthetic unity the early savage animism. These hylozoistic philosophers did not, however, give up the Homeric gods, but they treated their

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existence in a poetic way. They usually believed in their existence, but they always subordinated them to the one living world-ground.

(4) In common with all ancient peoples these Greek philosophers did not believe that the universe had unlimited space. On the contrary, they believed that it was limited and in the shape of an egg.

Table of Cosmologists. The Cosmologists are divided into two classes: (1) the earlier were monists — those who believe that the reality of the universe is a simple, undifferentiated unity; (2) the later were pluralists — those who believe that the reality of the universe consists of several elements equally real. They are enumerated as follows:—

THE MONISTS

- | | | |
|------------------------|---|--------------------------|
| 1. The Milesian school | { Thales
Anaximander
Anaximenes } | at Miletus. |
| 2. Xenophanes..... | | at Colophon
and Elea. |
| 3. The Eleatic school | { Parmenides
Zeno } | at Elea. |
| 4. Heraclitus..... | | at Ephesus. |

THE PLURALISTS

- | | |
|--------------------------------|-------------------|
| 5. Empedocles..... | at Agrigentum. |
| 6. Anaxagoras..... | at Clazomenæ. |
| 7. The later Pythagoreans..... | mainly at Thebes. |
| 8. Lencippus..... | at Abdera. |

How the Philosophical Question Arose. The interests of these philosophical scientists sharply differentiate them from the preceding theologians, like Hesiod and Epimenides, as well as from the masses who were absorbed in the religion of the Mysteries. They were, moreover, the men of Greece to whom the emotional

excitement of a religious revival would not appeal as a refuge from the troubles of the time. Their own experience in the political troubles had made paramount the question as to the permanence of things. Nevertheless, its answer must be found in nature and in an intellectual way. When they turned to the traditional theogonies they found no answer to their question, for



MAP SHOWING WHERE THE COSMOLOGISTS LIVED

(None of the Cosmologists, except the later Pythagoreans, lived in the motherland of Greece. Philosophical activity during this period took place in the colonies. The map shows the cities which were the centres of philosophy and the homes of the philosophers as indicated.)

there was only a mythical chronicle of a succession of gods beginning with the unknown. The question of the Cosmologists was not, therefore, what *was* the original form of this changing world, but what *is* fundamental in the world *always*. The time factor is no longer important. Not the *temporal prius* but the *real prius* is what they seek. The idea of a temporal origin of things gives place to that of eternal being, and the question finally emerges, *What is the real substance that constitutes the universe?*

The Greek Monistic Philosophies. Turning back to our classification on page 20, we see that the earliest Greek philosophers emphasized the monistic tendency, which had become so prominent in Greek religion. This group of monists was composed of the Milesians, Xenophanes, the Eleatic School, and Heracleitus. The course of reasoning of these early thinkers is naïvely simple, and like all naïve thought, it contains such contradictions that the modern reader is likely to become impatient with it. The value of the study of the philosophy of these early Greeks is entirely historical. Its historical value, however, is very great, for it is a revelation of the culture of the Greece of that time, it throws light on many of the teachings of Plato and Aristotle, and most of all it contains the germs of modern metaphysical problems. These first Greek philosophers raised the question, What is the constitution of the substance of the universe? Their answers are naïve solutions to the historical metaphysical "riddle."

The Milesians, who form the earliest philosophical school in European history, seem to have assumed two facts as self-evident about the substance of the universe: (1) There is a single cosmic substance identical with itself, which is the basis of all the changes in nature; (2) Moving matter is the same as life. The Milesians were quite unconscious that these two assumptions were contradictory, but the contradiction impressed their successors — Xenophanes, Heracleitus, and the Eleatics; and divided them in their development of philosophy. Matter which keeps identical with itself is the Unchanging¹

¹ Note further that in future philosophical discussions of this problem, the technical word "Being" is used for the Unchanging or the substance that remains forever like itself, and the technical word "Becoming" is used for the changing processes of Nature.

and is brought into opposition with Life, the Changing, or matter which moves. The question for Xenophanes, Heracleitus, and the Eleatics — and indeed for all future philosophy — was: How can the changing processes of life be explained by an unchanging substance?

Xenophanes, who was more of a religious reformer than a philosopher, was so absorbed in the first of these assumptions that he developed it for his purpose in his practical social reformation to the entire neglect of the second assumption. The Eleatics, however, to whose city Xenophanes had come, could not leave his doctrine in its one-sided and undeveloped form. They accepted his teaching of the divine Unchangingness of the universe, but this compelled these profounder thinkers to offer some explanation of the natural processes of change. Change to them cannot really exist. Heracleitus, on the other hand, was impressed with the aspect of life that is expressed in the second assumption of the Milesians — living matter is moving matter. He therefore maintained in direct opposition to the Eleatics, that the changing, living processes of nature alone are real. The two contradictory assumptions that lay so mutually indifferent in the Milesian doctrine thus became the basis of a sharp metaphysical controversy between Heracleitus and the Eleatics. The substance of the world is permanent, change is an illusion, said the Eleatics. The substance of the world changes, permanence is an illusion, said Heracleitus. Either all things are permanent or all things change. These early philosophers had no wealth of empirical knowledge nor of psychological reflection upon which to draw, and it is not strange that they should take extreme positions and be blind to their practical consequences.

I. The Milesian School. Of all the Greek cities in the sixth century B. C. Miletus was the wealthiest and most prosperous. It was one of the Ionian colonies and was situated on the coast of Asia Minor, and it alone was able to preserve its autonomy as neighbor of the warring eastern empires. Not until the battle of Lade was it captured and destroyed (494 B. C.). From two generations of philosophers history has preserved three names, — Thales, Anaximander, and Anaximenes. The school is called indifferently the Milesian or the Ionic school. The proximity of Miletus to Ephesus, Colophon, and Clazomenæ (as a glance at the map will show) explains the influence of the Milesian school upon the doctrines of Heracleitus, Xenophanes, and Anaxagoras. Undoubtedly the contact of the Milesians with the Orient and Egypt had brought to them knowledge and correct scientific observations of many sorts, especially astronomical.

Thales (b. 640 B. C.) was a member of one of the leading families of Miletus, and lived during the flourishing period of the city under the tyranny of Thrasybulus. He is counted among the seven Wise Men, and belonged to the rich commercial class. He probably engaged in commerce and traveled in Egypt. He was versed in the current learning, predicted an eclipse, and was acute in mathematics and physics. Probably he never committed anything to writing. Aristotle's comments are the only data about him.

Anaximander (611–545 B. C. ?) was an astronomer and geographer; he made an astronomical globe, a sundial, and a geographical map. He was an intimate disciple of Thales and wrote *Concerning Nature*, which is referred to as the first Greek philosophical treatise. Nothing is known of his life.

Anaximenes (560–500 B. C. ?) was the disciple of Anaximander. One sentence is preserved of his writings.¹

The Milesian Philosophy. The Milesians lived upon the seacoast, and the changes of the sea and air must have deeply impressed them. They had an intellectual curiosity to find the cosmic matter which remained identical with itself and at the same time moved. (See p. 22.) They were not, therefore, interested to discover the chemical composition of matter, but to find what matter was most moving and therefore most alive. Thales said that it was water; Anaximenes, air; and Anaximander, the Apeiron, or the Unlimited. Their respective choices were determined by what seemed to possess the most mobility and the greatest inner vitality. Thales thought water possessed this quality. Water is always moving. Thales saw it moving. It therefore has life in itself. Anaximander felt that no object in our perceptual experience would fully explain the ceaseless mobility of nature, and he called it the Unlimited or the Indeterminate — the Apeiron. It is a mixture in which all qualities are lost. The changes in nature are endless, and therefore the single cosmic substance, from which they come, must be endless as well, for “from whatever source things come, in that they have their end.” We learn that this is just the reason for Anaximenes choosing the air for the single underlying cosmic substance. The air is the most changeable thing and is Unlimited.¹

Both Thales and Anaximenes still held to the traditional polytheism of the Greek Epic. Anaximander

¹ “Just as our soul, being air, holds us together, so do breath and air encompass the whole world.”

risers above them in this respect. This conception of the Unlimited, to which his scientific search led him, is regarded by him as Deity. He calls it "the divine" ($\tauὸ \thetaεῖον$); although he speaks of it in the neuter gender it is, nevertheless, the first European *philosophical conception of God*. It is the first attempt to conceive of God as purely physical and yet without any mythical dress. In Anaximander the Milesian monism has a religious aspect.

2. **Xenophanes, the Religious Philosopher** (570 B. C.). The scientific monism of Anaximander was after all only expressive of that religious dissatisfaction, first voiced by the Wise Men, against the Hesiod cosmogony and the immorality of the Homeric myths. Now for the first time a positive conflict between religion and philosophy arose through Xenophanes, the rhapsodist of Colophon. Colophon, an Ionian city near Miletus, was noted for its obscene and cruel religious practices, and when his native city capitulated to the Persians, Xenophanes charged its feebleness to its immoral religion. He went to Magna Græcia, and, disguised as a musician, he wandered about for sixty-seven years through its length and breadth declaiming in song against the anthropomorphism, the mystic ecstasies, and the general social practices of the Greeks. He finally settled in Elea, southern Italy (see map), and on this account he is sometimes called the founder of the Eleatic school.

Xenophanes' influence upon the thought of Greece was threefold: (1) He preached the Milesian philosophical monism to the people of Greece in the form of a religious monism; (2) He carried this doctrine from eastern Greece (Asia Minor) to Western Greece (Magna

Græcia); (3) He was the connecting link between the Milesian and the following Eleatic school.

The Philosophy of Xenophanes. Based on one of the Milesian assumptions, viz., a single cosmic substance remains identical with itself in nature, Xenophanes felt that he had a right to set down two principles about nature.

1. The single ^{fundamental} primordial substance below the changes of nature is God. The reality below nature which Thales conceived to be water, Anaximander to be unlimited substance without a name, Anaximenes to be air, was said by Xenophanes to be God. The important point here is that Xenophanes has not given the Greeks a spiritualistic conception of God; but that he has positively stated that the substance of the universe is an object of religious devotion. He calls the cosmic substance God instead of calling it water, Apeiron, or air. It is a material thing, and yet it is an object of reverence. He ascribes to this God a spherical form, and yet also mental power of omniscience. God is "one and all" (*ἐν καὶ πᾶν*), and yet he is "one god, the greatest among gods and men, neither in form and thought like unto mortals." The positive conception of God hangs confused in the mind of Xenophanes. He is scarcely a monotheist, nor yet a pantheist. He is a hylozoist, who conceives the underlying cosmic substance to be an object of religious reverence. - G. S.

2. The single cosmic substance below the changes of nature is unchangeable. To the Milesians the more moving is matter, the more alive is it. Life and activity are the same thing. To Xenophanes this is not the case, but, on the contrary, the opposite is true. He conceives God to be a definite sphere that is unchange-

able and homogeneous. The material substance, God, always remains the same. "He has no need of going about, now hither, now thither, in order to carry out his wishes; but he governs all men without toil." Xenophanes thus becomes the forerunner of the Eleatic school.

3. Heracleitus, "the Misanthropist" and "the Obscure" (about 563-470 B. C.). Heracleitus was a native of Ephesus, belonged to the aristocracy, and suffered at the hands of the democracy. He wrote a treatise that was difficult to understand even by the ancients, some fragments of which are preserved. He was called the "weeping philosopher" because of his misanthropy, and also the "dark philosopher" because of the obscurity of his writings. He was a theorist rather than a physicist, and his doctrines foreshadow our modern physical theories. His name is coupled with that of Parmenides in the deep impression he made upon Greek thought. From his complacent and gloomy retirement he looked forth upon the world around him with profound contempt, as did the Stoics after him.

a. Heracleitus' Doctrine of Absolute and Universal Change. The wonder which the Ionians felt, that nature phenomena change into one another, found its liveliest expression in Heracleitus. He not only found that mutability was the primal aspect of nature phenomena, but he also pointed out that human experiences also had their rapid and complete transitions. Especially was he fond of citing the changes of opposites into each other. But what shows his development over the early Milesian doctrine was his isolation of the aspect of change from the Milesian conception of the cosmic matter, thereby affirming that abiding permanence is

an illusion. It is one thing to affirm that reality is essentially change; it is another to universalize change by affirming that the permanent has no existence. The Milesian doctrine was too naïve to go as far as that. Heracleitus piles up figures of speech to show that there is no permanence whatever. All existing things are only "becoming"-things, passing-away things. Being is always becoming, about-to-be. The only unchanging thing is change. "You cannot step into the same rivers, for fresh waters are ever flowing in upon you." "God is day and night, winter and summer, war and peace, satiety and hunger." "All things flow" (πάντα ῥεῖ). What abides and deserves the name of Deity is not thing, but motion — Becoming.

b. Fire is the Cosmic Substance. Here we come to a difficulty in explaining the doctrine of Heracleitus because of the confusion in his own mind. He evidently goes a long way toward conceiving the cosmic substance as an abstraction — as the process of change. But he could not be wholly abstract. He stops and tells us that the cosmic substance is fire, and he probably means by fire just the same sort of thing as Anaximenes meant by air. Fire is the cosmic substance. It is the essence of all material things because it is the most mobile. But, after all, the fire of which Heracleitus is thinking is not a localized thing, like the fire on the hearth. For the hearth fire in a sense is ever identical with itself. The fire which Heracleitus means is ever darting, ever transforming material. To sum up: Heracleitus does not mean by fire an abstraction like the law of change; he does not mean, on the other hand, a material ever remaining like itself; he does mean a material, but a transforming material.

c. **The Definite Changes of Fire.** Heraclitus makes some acute observations about the characteristics of the changing fire. The Milesians had been content to observe atmospheric changes and to name condensation and rarefaction as the forms of cosmic change. Heraclitus goes farther and emphasizes definite relations of change. The succession of changes always remains the same. Their definite relation is the only permanence in the world, and Heraclitus' conception foreshadows the modern conception of the uniformity of the law of nature. The changes are (1) fateful, (2) rational, and (3) just. They show that the world is a destiny, a reason, and a justice. This identification of ethical and logical qualities with the physical betrays the undeveloped condition of the thought of Heraclitus.

In general, there are two characteristics to be noted with reference to Heraclitus' conception of a definite succession of changes: (1) the changes are always a harmony of opposites; (2) and the changes are in a closed circuit. The process of change is not a flow in one direction like a river over its bed, but it is a movement in two opposite directions. By change Heraclitus means not only a passing into something else but a passing into the opposite. Everything is the union of opposites, and everything is the transition point of opposites about to separate. The flux of things is thus poetically conceived as a war of things, and this war is "the father of all things." This unity of opposites has an equilibrium that illudes us into thinking it is permanent. The universe is an invisible harmony, divided into itself and again united. Investigate life and there are antitheses everywhere. War is life. The second general characteristic of the succession of changes is

their closed circuit. Fire changes into all things, and all things are changing back into fire. These two movements are called the "Upward Way" and the "Downward Way." Downward, fire changes through air and water into earth. Upward, earth changes back to water, air, and fire. With every change, there is counter-change, action is accompanied by a reaction. "Men do not know how that which is drawn in opposite directions harmonizes with itself. The harmonious structure of the world depends upon opposite tension, like that of the bow and the lyre."

d. The Practical Philosophy of Heraclitus. Heraclitus was more of a metaphysician than a physicist, and his chief concern was in the formation and the practical application of his theory of change. He looked upon man as a bit of cosmic fire struck off and imprisoned in a body of earth, water, and air. After death this fiery soul is released and absorbed in the cosmic fire. In his present state man has a divided existence: the life of the soul, or the fire of the reason; and the life of the senses of the imprisoning body. The reason retires from the illusions of sense, and sees in its aristocratic isolation how illusory the sensations are. For the senses tell us that their objects are permanent, while the reason sees through this deception to the changingness of the world. Thus the beginning is made by Heraclitus in distinguishing the reflections of the reason from sensations. Truth is for the first time systematically set over against opinion. The reasonable Wise Man resigns himself to whatever happens because he knows that it is fateful, wise, and just. The Wise Man recognizes that all is change, and he is happy because he sees providence in the vicissitudes of his own

life. Thus in the aristocratic hate, which Heracleitus holds against democracies, he makes conformity to law the only way to happiness. The reason of Wise Men, and not the senses of the multitude, must be the true guide of society.

Heracleitus was a profound observer and theorist. His physical theory foreshadowed the modern theories of natural law and of relativity; his practical theories reappear in the psychology of Protagoras and the ethics of the Stoics.

4. **The Eleatic School.** The town of Elea to which Xenophanes came in the course of his wanderings had been recently settled by the Ionian refugees from Phocæa, a great maritime city in Asia Minor, which had been conquered by the Persians (543 B. C.). Elea is now Castellamare on the west coast of Italy. It is celebrated as the birthplace of Parmenides and Zeno, who founded the so-called Eleatic school.

a. Parmenides (b. 515 B. C.).

Parmenides wrote about 470 B. C. He is represented as a serious and influential man, with a high moral character. He exercised strong influence upon such philosophers as Plato and Democritus, and was a political power in the city of Elea, of which he was a native. He was not a stranger to the Pythagoreans. The large fragment of his poem is the most ancient monument extant of metaphysical speculation among the Greeks.

Parmenides takes the doctrine of Xenophanes with great seriousness, and what Xenophanes says about the Godhead, Parmenides says about all things. Xenophanes' religious weapon of an unchanging cosmic substance becomes in the hands of Parmenides an academic doctrine of science and the basis of logical controversy.

Parmenides used the conception of Xenophanes in his great didactic poem, *The Way of Truth and the Way of Opinion*, with the evident purpose of refuting the theory of Heracleitus. The fragment of the poem reveals the driest abstractions dressed in rich poetry. As a thinker Parmenides is the most important in this period. Zeno was the friend and pupil of Parmenides.

(1) **The Cosmic Substance is Being.** The first assumption in the Milesian doctrine—that there is a single matter that ever remains identical with itself—was so self-evident to Parmenides that he does not attempt to prove it. He assumes it, as if it were cogent to everybody. However, he explains what he means by Being in a negative statement: Not-Being, or what is not, cannot be thought. Being and thought are so correlated that they are the same. Thinking always has Being as its content, and there is no Being that is not thought. *Being=Thought*. This explanation of Parmenides' identification of thought and Being may be put in this logical form:—

All thinking refers to something thought, and therefore has Being for its content;

Thinking that refers to nothing, and is therefore contentless, cannot be;

Therefore, not-Being cannot be thought, much less can it be.

These propositions look very abstract, and make us believe that we are to plunge immediately into a kind of German idealism. But Parmenides leaves us in no doubt that he is one of the hylozoists of his time. Being is indeed thought, but Being is also matter. We may therefore amend our equation to *Being=Thought*

= *Matter*. Being is what fills space, and all Being has this and only this property. All Being is therefore exactly alike, and there is only one, single Being. There are no distinctions in Being. By not-Being Parmenides means empty space or that which is not material. So that Parmenides' assumption of Being as the cosmic substance means this: all that exists, including thought, fills space; and all that does not exist does not fill space.

Being, the cosmic substance, is one, eternal, imperishable, homogeneous, unchangeable, and material. When men see the world as it really is, when they see its cosmic substance, they see it to be one continuous material block. The world is not made up of parts with intervals of nothing between them, but it is a solid, homogeneous whole. The cosmic Being is a timeless, spaceless Being with no distinctions. The form of Being is spherical. It is cosmic-body and cosmic-thought. This is the assumption of Parmenides, which is so self-evident and so cogent to him that he does not attempt to prove but only to explain it.

(2) **Other Things than the Cosmic Substance (Being) have no Real Existence.** If Being is space that is filled, not-Being is empty space. However, empty space has no existence. But the existence of a plural number of things depends upon the existence of empty spaces between them. Furthermore, the motion of things and the change of things depend upon the existence of empty spaces in which they can move and change. Since empty space is not-Being and has no existence, the plurality of things and the motion and change of things have also no existence. They are illusions. The nature-world, with its richness of qualities and variety

of motions, before the logic of Parmenides "folds up its tents like the Arabs and silently steals away."

This logical drawing out of one of the aspects of the Milesian conception of the cosmic matter has a curious result. The Milesians and Xenophanes sought to explain by the cosmic substance the many nature changes. But when in the hands of Parmenides the cosmic substance is all of reality, then there is no reality to the changes. Consequently the concept formed for the explanation of change has so developed as to deny the existence of change. The cosmic substance excludes all origination and decay, all space and time differences, all divisibility, diversity, and movement. There is only one real, all else is illusion.

But what can we say of the varied world of nature as it appears to us? Do we see, hear, and touch many things and motions? In Part II of his poem he raises the question, Suppose man takes the world of change as real how must he explain it? He answers by using the explanation of Heracleitus. But these changes of eye and ear belong to the world of sense, and Parmenides is talking, in Part I of his poem, about the real world or that world known to thought. Parmenides insists as strongly as did Heracleitus that the reason and not the sense shall be our guide to what is real. Yet he arrives at exactly the opposite conclusion from Heracleitus as to what the reason sees as real. The senses show us only the many and the changing. The reason shows us nothing of the sort, but only permanence and unchangingness.

b. Zeno (b. 490-430 B. C.).

Zeno was born in Elea. He was contemporary with those who tried to reconcile the two sides of the meta-

physical controversy, — Empedocles, Anaxagoras, and the Atomists. He wrote in prose in the form of question and answer. This is the beginning of the dialogue literature, which in the time of the Sophists, Socrates and Plato, was richly developed and became known as dialectic. On the Greek stage during the time of Pericles it came forth in dramatic form through Æschylus, Sophocles, and Euripides.

The Philosophy of Zeno. Zeno was the active controversialist of the school of Elea, and he was not a constructive philosopher. He offered no contribution to advance the thought of Parmenides. He appeared rather as the master of logical argument in defense of his predecessor, by tearing to pieces the arguments of his opponents. The opponents that Zeno is attacking are the Atomists of Abdera, who were his contemporaries, rather than Heracleitus. His contribution was negative and formal, but it was nevertheless effective and searching. His arguments and paradoxes will, however, lose their cogency unless it be kept in mind that he is trying to show how absurd magnitude, multiplicity, and change would be in discontinuous space such as the Atomists describe. While his paradoxes have been attacked again and again, they still have effectiveness against atomic theories.

His arguments are against magnitude, multiplicity, and motion. There can be no magnitude, because a thing would then be both infinitely small and infinitely great. There can be no multiplicity of things, since they would be both limited and unlimited in number. There can be no motion, because (1) it is impossible to go through a fixed space; (2) it is impossible to go through a space that has movable limits; and (3) because of the rela-

tivity of motion. The dilemmas which he proposed of Achilles and the tortoise, the flying arrow at rest, and the bushel of corn are classic.*

The Results of the Conflict between Heracleitus and Parmenides. 1. One important result of this final conflict between the inconsistent motives in the Milesian teaching was that reason was contrasted with sense, reflection with experience. The more fully the philosophers developed their doctrines, the more their doctrines became contrasted with the opinions of unreflecting people. At first the contrast appeared in this naïve form: that what they thought was right, and what others thought must be wrong, if others differed from them. Then the contrast came in this form: that reflection gives the true and sensations the false. Thus reflection came to have such conclusiveness that it gained independence. The philosopher began to feel the supremacy of reason, to assert that he has truth, to call unreasoned belief by the opprobrious name of "opinion." This is curiously illustrated in the case of Heracleitus and Parmenides. Their opposing conceptions of the cosmic substance are claimed to be the result of reason, while each calls the other's theory "opinion."

2. Another result was that in the Greek thought the monistic theory was found to be useless in the study of nature. These early monistic views led up as necessary steps to pluralism, but they were not in themselves serviceable. The imperfection in the Milesian teaching appeared in the impassable gulf between Heracleitus and Parmenides. It now remained for the last Cosmologists to see if, on the basis of pluralism, they

* Read Windelband, *Hist. of Ancient Phil.*, pp. 67 ff.; Zeller, *Greek Philosophy*, pp. 63 ff.

could not reconcile the preceding views and at the same time obtain a satisfactory metaphysics of nature.

3. The third result of the controversy between the Eleatics and Heracleitus was that the peril from the Orphic Mysteries was averted, — not immediately, nor in a year's time, but after many years. Philosophy became established. The Greek reason now had an object of interest, in a sharp scientific issue. Mystery was not crushed, but subdued. The mental life of the future Greek had a topic for its reflection which supplanted, when the time came, its emotional interest in the supernatural.

CHAPTER III

PLURALISM

Efforts toward Reconciliation. The theories of Heraclitus and Parmenides were in part fantastic and in part abstract. They were the two motives of the Milesian school that had been developed so far as to reveal their inherent inconsistencies.

Physical theories now began to spring up which modified the metaphysical theories; and these produced results which while not so logical, were less distant from the facts of life. The Eleatics had so conceived Being as to deny the existence of changing phenomena perceived in the world of nature. On the other hand, Heraclitus had so emphasized the universality of change that there was little reality left in the particular changes. The later Heraclitans were Heraclitus gone mad. "We not only cannot step into the same river twice, but we cannot do it once." All the preceding philosophers had been monists. The time had therefore come for thinkers to abandon monism if thought were to have any usefulness. Monism, whether in the form of Heraclitus' doctrine of universal change or of Parmenides' doctrine of universal permanence, had merely set aside the problem about the Many. Of course, a more satisfactory solution of this problem could come only when human life had become riper and had more experiences upon which to draw. It was natural for the Greek philosopher to look now to pluralism for his solution, when he turned away from monism. *At the*

outset pluralism tried to reconcile the two extremes to which the Milesian motifs had gone. Its later development in the doctrine of Protagoras was as extreme as that of the monists.

The New Conception of Change of the Pluralists. Facing the fact that change has to be explained and cannot be denied, change is conceived by the pluralists to be not a transformation but a transposition. It is an alteration in position of the parts of a mass. Birth, growth, death, are only such changes of transposition. Empedocles, to whom the origin of the doctrine is attributed, says, "There is no coming into Being of aught that perishes, nor any end for it in baneful death, but only a mingling and a separation of what has been mingled. Just as when painters are elaborating temple offerings, — they, when they have taken the pigments of many colors in their hands, mix them in a harmony, — so let not the error prevail in thy mind that there is any other source of all the perishable creatures that appear in countless numbers." All origination, then, is a new combination, and every destruction only a separation of the original parts. The Pluralists thus make Heraclitus' conception useful in the explanation of nature.

The New Conception of the Unchanging of the Pluralists — The Element. But there must be a permanence in order that there be change. This can only be conceived by assuming that there are many original units that in themselves do not change. The mass of the world is ever the same; there is no new creation. Being consists in many elements, and not in a single block. So to Empedocles in particular is accredited the priority of forming the conception of the element, which has occupied an important place in science.

The element is conceived by the Pluralists as unoriginated, imperishable, and unchanging. It has all the qualities that Parmenides attributed to his single Being, only the elements may change their place and suffer mechanical division. The Pluralists thus make the Eleatic conception useful in the explanation of nature.

The Introduction of the Conception of the Efficient Cause. The Eleatics had detached the quality of motion from Being. The Pluralists, in reintroducing it, were obliged to make it a separate force in order to get movement into their universe. The elements are changeless. How can they move? They cannot move themselves. They are moved from without. Here in Empedocles is made a differentiation of great importance — the concept of the moving or efficient cause. However, this does not appear in this early time in conceptual but in mythical-poetic and undefined form. With this differentiated efficient cause, can Pluralism be considered to be hylozoism? Authorities differ. Certainly this new concept shows the beginning of the breaking up of hylozoism and the beginning of the formation of a mechanistic conception of the universe. But probably the Pluralists were as much hylozoists as their predecessors, the monists. Their efficient causes are material like the elements, and they are poetically and indefinitely described. They are in every case conceived as the material which has a lively or an originating motion. We must keep in mind that all the Cosmologists except the Eleatics believed movement to be life.

Summary of Similarities and Differences in the Theories of the Reconcilers.

The general common characteristics of the theories of the Reconcilers:—

1. A plurality of the elements.
2. An efficient cause which explains the shifting of the elements in causing the origin, growth, and decay of the world of nature.

The general differences between the theories of the Reconcilers : —

1. In the number and quality of the elements.
2. In the number and quality of the causes.

The Pluralistic Philosophers : Empedocles, Anaxagoras, Leucippus, and the Later Pythagoreans. With the Pluralists we pass completely out of the sixth century B. C. The lives of the hylozoistic Pluralists span the fifth century, and cosmological interest extends later. Even the Eleatic Zeno lived from 490 to 430 B. C. Empedocles lived from 490 to 430 B. C., Anaxagoras from 500 to 425 B. C., and the Pythagoreans and Leucippus later. When the cosmological movement was still virile in the Grecian colonies, and even before it had reached its systematic form in Democritus of Abdera, the anthropological movement had begun in the motherland, in Athens. The Persian Wars are the dividing line between the two periods, but only because they denote the beginning of the new movement in Athens, not the end of the old movement in Asia Minor and Magna Græcia. Contemporaneous with the Pluralists was the brilliant Age of Pericles, when the Sophists were carrying education to the people and Socrates was teaching in the Athenian market-place. By the middle of the fifth century B. C. there was the liveliest interchange of scientific ideas throughout Greek society, and the contemporaneousness of the Pluralists with one another and with the Athenian philosophers shows this in many similarities in their doctrines and in many

polemical references. There are four schools of Reconcilers, of which Empedocles, Anaxagoras, Leucippus, and the later Pythagoreans are the representatives.

*Empedocles** (490 to 430 B. C.) was the first Dorian philosopher, a partisan of the democracy, and belonged to a rich family of Agrigentum. He became a distinguished statesman, but he later fell from popular favor. Then, in the garb of a magician, he traveled as physician and priest through Magna Græcia. His political affiliations would prevent his direct connection with the Pythagoreans, but he showed that the Pythagoreans influenced him, and his career is an imitation of that of Pythagoras. He was acquainted with the theory of Heracleitus, and he knew Parmenides personally. He was one of the first rhetoricians, and was probably connected with a large literary circle. He is the first and most imperfect representative of the reconciliation. The story of his suicide by leaping into Mt. Ætna is supposed to be a myth.

Anaxagoras (500–425 B. C.), a man of wealthy antecedents, was much esteemed, was born in Clazomenæ in a circle rich in Ionian culture, but was isolated from practical life. He declared the heaven to be his fatherland and the study of the heavenly bodies to be his life's task. He went to Athens about 450 B. C., where he formed one of a circle of notable men of culture. He lived in Athens under the patronage of Pericles, but in 434 B. C. he was expelled. In Athens he was intimate with such men as Euripides, Thucydides, and Protagoras. He represents the first appearance of philosophy in Athens.

The life of *Leucippus* is almost unknown. He was

* Read Matthew Arnold, *Empedocles* (a poem).

probably born in Miletus, visited Elea, and settled in Abdera.

The Later Pythagoreans. After the Pythagoreans as a religious and political body had been defeated at Crotona, they lost their prestige and were scattered to the four winds. They were beaten in the battle of Crotona (510 B. C.) and dispersed about 450 B. C. Pythagoras died 504 B. C. His scattered followers, these later Pythagoreans, formed a school of philosophy which had its centre at Thebes. Destroyed as a religious body the members lost their superstitions and turned their attention to philosophy, astronomy, mathematics, medicine, and physics. As mathematicians and as astronomers they are the most notable among the ancients. Philolaus is the probable originator of their philosophy of numbers. This school disappeared about 350 B. C. Pythagoreanism reappeared later under the name of neo-Pythagoreanism.

The Philosophy of Empedocles. Empedocles conceived the number of elements to be four, — earth, air, fire, and water, — an arbitrary enumeration, which nevertheless persisted in the popular imagination throughout the Middle Ages. He chose this number of elements because they included all the elements in his predecessors' theories. By the transposition and new arrangement of these elements he could account for the variety of the world. The efficient causes that make these different separations and mixtures are Love and Hate, two mythical and sensuous entities. Love is the cause of the union of things, Hate of their separation.

This is the general metaphysical theory that Empedocles uses to explain the physical world and especially physiological phenomena ; and he is probably best known

as the author of the aphorism, "Like attracts Like." For example, he conceives the physical world as continuously repeating itself through four cosmic stages, each centuries long. The world moves therefore in cyclical evolution, in which Love is bringing like elements together only to be followed by stages of the separation of the like elements by Hate, — an endless cosmic procession.

But Empedocles' interest in cosmology was only a part of his dominating interest in the organic world. He held some interesting evolution theories. His special interest in human physiology led him to frame the first theory of perception. Man is composed of the four elements, and he can know the universe around himself because Like in him attracts Like in the external world. The earth forms our solid parts, water the liquid parts, air is the vital breath, and fire is the soul. The blood contains the four elements, and is therefore the real carrier of life. If we perceive anything, it is because we have qualities similar to that thing. The element in us attracts the like element outside. He fancifully explained how parts of each element pressed upon parts of like elements — earth upon earth, air upon air; and how these clung together until sundered by Hate. The senses have only a partial number of elements, while the reason has them all; therefore sense knowledge is partial when compared with rational knowledge.

The Philosophy of Anaxagoras. The pluralistic conception of the nature-substance, that was originated by Empedocles in this crude form, got a more complete character in the hands of Anaxagoras. For Anaxagoras took exception to the arbitrary assumption of Empedocles that the elements were only four in number. How

could this world of infinite variety be derived from only four elements? We must postulate as many elements as there are qualities, if by merely shuffling them — by various combinings and separatings of them — their infinite number is to be explained. *There are a plural number of elements qualitatively distinct.* Every perceptual thing is composed of these heterogeneous parts or qualities or elements. But how do you know an element when you find one? Always by the fact that when you divide it, its parts are homogeneous. The elements are, therefore, those substances that divide into parts that are like one another; while the perceptual objects of nature can be divided into parts that are unlike one another. They are called “seeds” by Anaxagoras, and designated as “homoioimeriai” by Aristotle and later philosophy. This was a time, it must be remembered, when chemical analysis had not developed, and when mechanical division and change of temperature were the only means of investigation. Form, color, and taste were the characteristics that differentiated elements. So Anaxagoras was content to name as elements such things as bones, muscles, flesh, marrow, metals, etc. The countless elements or qualities are present in a finely divided state throughout the universe. Every perceptual object has present in it all elements, even opposite elements. It is, however, known and named by the element that prevails in it at any particular instant. For example, fire contains an element of cold but the fire element prevails. Opposites attract, and the qualitative change in a thing consists in the predominance of some other quality already present in it.

For the efficient cause of the combining and separating of the elements *Anaxagoras selected one of the*

elements. He called it the *Nous*, the Greek word for mind or reason. Many historians have therefore concluded that Anaxagoras is the author of an idealistic philosophy. Aristotle says of Anaxagoras that he "stood out like a sober man among the random talkers that had preceded him." But both Plato * and Aristotle are disappointed with the way in which Anaxagoras handles the conception of *Nous* and, as a matter of fact, the *Nous*, as Anaxagoras uses it, is not less hylozoistic than the Love and Hate of Empedocles. In the *Nous* Anaxagoras threw out a thought that was too big for him. Its introduction, however, marks the breaking up of pre-Socratic hylozoism. Anaxagoras wrote down the word, *Nous*, from which comes the contrast with matter. He stripped the mythical dress from the efficient cause of Empedocles and substituted *Nous*, because he wished to emphasize the unity of the cosmic process. The *Nous* is one of the elements; it is "thought-stuff," it is a corporeal substance. It differs from all the other elements in that it is the finest, the most mobile, and has the power of self-motion. If among the early schools motion is life, here we find the new conception of self-motion as most alive. Instead of a departure from hylozoism, this is a rehabilitation of hylozoism in more perfect form. The *Nous* is the cause of the harmony and order of the cosmos.

The Philosophy of the Atomists — Leucippus and the School at Abdera. Only circumstantial evidence is left to testify to the early beginnings of the school of atomists at Abdera. About 450 B. C., owing to the rise of Athens and the great victory of Cimon over the Persians, the Ionian civilization on the coasts of Asia Minor

* Read Plato, *Phaedo*, 97, B.

had a new lease of life, and there was a renewal of scientific activity in the cities. The influence of the Milesians appeared and Anaxagoras' doctrine, which had been widely disseminated, began to have great vigor. Among the philosophers of this section was one about whom we know very little, except that his name was Leucippus and that he was the father of atomism. Miletus was probably his native place, and after visiting Elea he settled in Abdera in Thrace. We know that the polemic of Zeno was directed against contemporary atomism ; and we know the theories of the pupils of Leucippus, of Protagoras, and of Democritus, in whom the doctrine of atomism culminated. Probably the theory of Leucippus was that the cosmic substance is composed of *an infinite number of elements quantitatively distinct*, in opposition to Empedocles' theory of a four-fold division as well as against Anaxagoras' theory of an infinite number of qualities. Atomism in this early form represents one of the ways that Greek thought took in reconciling the conflicting claims of Heracleitus and Parmenides. The doctrine of atomism will be presented fully in its greatest representative, Democritus.

The Later Pythagoreans. Had the Pythagorean band remained what Pythagoras had designed it, had it not had its political aspirations crushed at the battle of Crotona and the members scattered far and wide, it would probably have for the historian of to-day only the importance of a local band of political and religious reformers. The adversity at Crotona was, however, a blessing in disguise for the Pythagoreans and for Greece, for it turned the Pythagoreans from religious politics to science and metaphysics. *In the first place*, they became the authors of an important metaphysical theory.



This was the theory of numbers, which influenced Plato, became the foundation of a vigorous school in Alexandria in the Hellenic-Roman Period, flourished during the Middle Ages, and united with the doctrines of the Jews in what is called the Cabala. To-day the magic numbers persist in our superstitions. *In the second place*, the Pythagoreans turned to science, — especially to mathematics and astronomy, — and in these two branches became very celebrated in ancient times. Their astronomical theory had a most extraordinary history. With modifications it was preserved by Plato and Aristotle, and later became the basis of the Ptolemaic system of astronomy. This system was the scientifically accepted system for fifteen hundred years, when it was supplanted by the Newtonian theory. It is a most singular fact that the cosmological background of the Epics of Dante and Milton is the astronomical system of the Pythagoreans as expressed in the Ptolemaic system.

The Pythagoreans, be it remarked, were “Reconcilers,” but they were more. The original ethical motive of Pythagoras influenced them as scientists. They did not attempt to formulate a science of ethics, but the ethical motive was always back of their mathematics and astronomy.

1. The Pythagorean Conception of Being. The Pythagorean conception of reality is the most advanced of any cosmological theory in this period. The Pythagoreans were hylozoists, but they come the nearest to transcending the hylozoism of their time. The influence of the later Pythagoreans, whom Plato met in Italy, upon Plato shows that Pythagorean philosophy forms a link between the cosmology of the colonies and the following comprehensive systems of thought.

The important position in the evolution of Greek thought occupied by the Pythagoreans depends upon their conception of that Being that abides amid all change. Pythagoreanism is usually spoken of as "the number theory." This is, however, only a suggestion of its import. For numbers are not to the Pythagoreans what the different kinds of cosmic matter were to the early monists, or what the several elements were to the pluralists, — Empedocles, Anaxagoras, and the atomists. Neither are they abstractions merely, such as we use in scientific reckoning. The Pythagoreans were pluralists and hylozoists whose plural numbers look beyond hylozoism.

There are two kinds of reality in the Pythagorean teaching: (1) numbers, and (2) unlimited space. The essential nature of things, the Being that abides, consists in the shaping of this unlimited space into mathematical forms. The numbers or the forms are the limited aspect of Being; space is the unlimited aspect of Being. Actual Being consists in the union of the two aspects. Being therefore has two roots, each being necessary to the other. The later Pythagoreans, indeed, called attention to the fact that their numbers were not the same as the different kinds of matter out of which the other Cosmologists conceived the world to be fashioned. Numbers are not the stuff out of which the world of nature-objects have arisen, but rather are forms of nature-objects. Numbers are the patterns or models of things; things are the copies or imitations of numbers. Unlimited space furnishes the material; numbers or mathematical forms furnish the mould; the result is a material thing. Here we find the early basis of Plato's doctrine of Ideas, and the correlation in Aristotle of Form and matter. If we were to draw an ana-

logy between the Pythagorean conception of numbers and any part of the preceding cosmological teaching, we should find the similarity between the numbers and the earlier efficient causes and not between the numbers and the elements. For example, Pythagorean numbers have a function more nearly like Love and Hate than like the four elements in Empedocles' teaching. On the other hand, Pythagorean unlimited space is analogous to the Empedoclean elements.

2. **The Pythagorean Dualistic World.**¹ The Pythagoreans carried out their conception of this twofold reality both in their mathematical studies and in their conceptions of natural objects. It was from such investigations that they were impressed by the dualism in everything and so reached their principle. They observed in mathematics that the number-series consists of alternate odd and even numbers. The odd numbers are limited and the even unlimited (because they could be divided). They explained the elements as determined by mathematical forms: fire has the form of a tetrahedron; earth, of the cube; air, of the octohedron; water, of the icosahedron; and an additional fifth element, the æther, of the dodecahedron. They carried this dualism further by identifying the limited form with the odd, with the perfect, and with the good; while the unlimited was identified with the even, the imperfect, and the bad. Some of the Pythagoreans even sought to trace out this dualism in the many realms of experience, and they originated a table of ten pairs of opposites: limited and unlimited; odd and even; one and many; right and left; male and female; rest and motion;

¹ Dualism: the belief that the world is to be explained by two independent and coexistent principles.

straight and crooked ; light and dark ; good and bad ; square and oblong.

There is a system in the Pythagorean theory not to be found in the teaching of the other reconcilers. Although all the numbers, and with them all the world, are divided into two opposing classes, these are, nevertheless, united in a harmony. The harmony of a dualism reminds us of Heracleitus' harmony of antitheses. All series of numbers have their unity and harmony in the odd-even number, One. To the Pythagorean the opposites of life — the good and the bad, the limited and unlimited, the perfect and imperfect, the odd and even — exist in an harmonious whole.

As the Pythagorean school grew in years, the realms to which it applied its theory increased. While we have stated its metaphysical theory first in order to give it prominence, the school came to the formulation of its theory through its investigations in mathematics, music, and astronomy. Then it applied the theory to geometrical structures and to other fields with a procedure that was arbitrary and unmethodical. Yet so universal was the application of the theory that it lived to have superstitious authority for the human mind in the Middle Ages.

3. Pythagorean Astronomy. The formation of the world-all began from the One, or central fire, which attracted and limited the nearest portions of the unlimited. This fire became the centre of the world-all, which had the shape of a hollow globe. Around the central fire the celestial bodies move in globular transparent shells. Their movements are concentric to the fire. This is the beginning of the astronomical theory of the crystalline spheres. The world-all is divided into three

concentric portions. The periphery or outer rim is Olympus, where all is perfection and where the gods dwell. Between Olympus and the moon is Cosmos, where all is orderly and all movements are in circles. Between the moon and the central fire is the region called Uranus, where all is disorderly and the movements are up and down. The earth is in this lower section of disorder, and moves in a transparent globular shell like the celestial bodies around the central fire. The number of the heavenly bodies is the perfect number, ten. The world-all is conceived as a heavenly heptachord, with the orbits of the seven planets as the sounding strings. Upon this notion was founded the harmony of the spheres, which harmony is not heard by man because it is constant. In modifying this astronomical theory and then accepting it, the most important change that Aristotle made was to conceive the earth as at the centre of the world-all with the sun revolving about it. This was the form in which the Ptolemaic astronomers received it.

Historical Retrospect. In these many searchings of the Cosmologists for a reality amid the changes of nature, what result can be found significant for the Cosmological Period and valuable as a bequest for the following periods? Are these crude scientific speculations of the early Greeks to be looked upon as out of connection with their own age and the age to come? The Cosmological philosophy had two definite results. *In the first place*, with reference to its own century and a half, it saved the intellectual world of Greece from the slavery of a mystic religion. When we started with Thales in 625 B. C., we saw Greece confronted with two perils. One was political, and consisted of internecine

troubles and of danger from its warlike neighbors. This peril grew still greater, until at the very end of the period it was averted at the battle of Salamis. Greek arms banished this political peril. But the other peril was subjective and therefore more menacing. The mysteries of the Orphic religion would have quenched the Greek genius had not its rational philosophy given the Greek intellectual life new conceptions. *In the next place*, it bequeathed to the succeeding period a fairly well-drawn contrast between a world of intellectual order and a world of sensuous disorder. The thought of an order in nature in conformity to law was developed into clearness in the Cosmological Period. The order was obtained from the astronomical studies of these scientists. Reasoning from the order that they saw, to an ordering principle, Anaxagoras and the Pythagoreans almost, but not quite, gave to that principle a teleological meaning. The principle of permanence that these nature scientists sought was found in the great and simple relations of the stars, whose revolutions are the expression of order and constancy. Impregnated as they were with their elemental hylozoism, the Greek Cosmologists were as yet not quite able to find an orderly permanence in the terrestrial world with its manifold and intersecting motions. Yet Greek thought was looking forward. The Cosmologist had already contrasted the terrestrial as the imperfect with the celestial as the perfect peace and permanence. The step was but a short one from the contrast of the two realms to the effort to bring them into a unity. Thus in this astronomical and concrete form a distinction of value was obtained that had lasting ethical and æsthetical significance, not only upon Plato and Aristotle, but upon modern thought.

CHAPTER IV

THE ANTHROPOLOGICAL PERIOD (490-399 B. C.): THE PHILOSOPHY OF MAN

An Historical Summary of the Anthropological Period. The Anthropological Period begins with the Persian Wars, 490 and 480 B. C. After the battle of Marathon there sprang up a distinct impulse toward knowledge all over Greece ; and detailed investigations were begun in mathematics, astronomy, biology, medicine, history, and physics. Science, which had up to this time been unorganized and undifferentiated, now became sharply divided into the special sciences. But what makes the Persian Wars of particular importance is that they are the starting-point in the motherland of the movement in the study of man and human relations. The battle of Marathon does not therefore mark the end of the Cosmological movement and the waning of the Greeks' interest in science ; but it marks rather the beginning in Athens of the Anthropological movement. The Cosmological and the Anthropological Periods overlap.

The Anthropological Period easily divides itself into three epochs from the point of view of its political affairs : —

1. The Persian Wars, 490 and 480 B. C.
2. The Age of Pericles, 467-428 B. C.
3. The Peloponnesian Wars, 432-403 B. C.

The first epoch is the birth and the last epoch the decadence of pure Greek civilization, while the thirty-nine

years of the supremacy of Pericles cover the ripest period of Greek life. In this connection it is well to mention Hegel's thought that nations do not ripen intellectually until they begin to decay politically ("The owl of Minerva does not start upon its flight until the evening twilight has begun to fall"). Plato and Aristotle do not come until after this period, when Greek political life had begun to wane.

The following table is a partial list of the notable men of the period, with the date of their *birth* : —

Æschylus, 525	Anaxagoras, 500.
(dramatist before Pericles).	Empedocles, 495.
Sophocles, 495	Protagoras, 480.
(dramatist during Age of Pericles).	Democritus, 470.
Phidias, 490.	Sophists (many), 450–350.
Euripides, 480	Socrates, 469.
(dramatist of the Sophistic and the new learning).	Antisthenes, 440.
Herodotus, 475.	Aristippus, 435.
Thucydides, 471.	Plato, 427.
Xenophon, 430 ?	
Aristophanes, 444.	

The Persian Wars and the Rise of Athens. The blow that had been impending over Greece during the sixth century had been struck, but had been averted in the Persian Wars of 490 B. C. and 480 B. C. The powerful and splendidly organized "barbaric neighbor," who had threatened the civilization of the Greek cities of Asia Minor for so many years, had swept over the Hellespont into Greece and had been turned back. It has been pointed out¹ that the Persian Wars were only one

¹ Wheeler, *History of Alexander the Great*.

of a series of conflicts between Oriental and Occidental civilizations; and that the strip of Asia Minor along the Mediterranean has always been a disputed borderland between irreconcilable hemispheres. First was the mythical invasion of Troy; then the Persian Wars; then came the arms of Alexander conquering Persia; then the invasion of the Mohammedans to the very walls of Tours; then the Crusades; and to-day we still have the eternal Eastern question with us. While each of these conflicts was momentous for Europe, none was more important in its issues for the world than the Persian Wars. For through those wars did Greece first come to a consciousness of herself. Never before did she realize her united strength, — the greatness of her inherited instincts. The fifth century B. C. was the most clearly conscious moment of Greece, if not of the world. Classic Greece — the Greece whose thought became fundamental to western civilization — was born from the Persian Wars.

The centre of gravity of the Greek world was shifted after the Persian Wars from Miletus to Athens, from the colonies to the motherland. Indeed, the history of classic Greece is almost entirely the history of Athens. Of the large cities of Greece, — Corinth, Ægina, Sparta, and Thebes, — Athens was naturally the locality where Grecian civilization would centre when the commercial and maritime colonies fell. The Ionian race, by whom it had been settled, was a mixed race, and by nature very versatile. Before the Persian Wars it had been under the wise tyranny of Pisistratus, who took the first steps toward the founding of an Athenian empire. In the period between the two wars, Themistocles had built the Athenian fleet and thereby made Athens the great mari-

time and naval centre of Greece. There was, indeed, every reason why Athens and not some other Greeian city should become the new centre of classic Greece. The Spartans were oligarchical, stern, unintellectual, and offensive to strangers; the people of Thebes were held under a strict aristocratic government, the people of Thessaly were aristocratic, luxurious, and stagnant; but the Athenians were democratic, social to strangers, literary, liberal, frugal, and alert. After the Persian Wars the power of the Delian confederacy became more and more centralized in the city of Athens. Controlling the fleet of the Confederacy for her own defense and using the rich treasury of the Confederacy for her own municipal improvements, Athens under the brilliant rule of Pericles, who summoned scholars and artists from all Greece, was the only city of Greece where the Renaissance of Greece was possible. Athens had become the eye of Greece, and the following description of the Greek Renaissance is especially significant in regard to her.

The Greek Enlightenment. Following the Persian Wars there arose throughout Greece a great national intellectual movement. The years mark the Greek Renaissance, the Age of Pericles, and the time when the Greek masterpieces in literature and plastic art were produced. Perhaps the greatest Greek production was Athens itself, whose cultural influence was personified in the scholar-politician, Pericles.

1. *The Impulse for Learning.* In the first place there was a general impulse throughout Greece for education. Everybody seemed to want to know what the schools of Cosmologists had had to say about science. The Greeks now had wealth and therefore leisure; they had come into contact with the Oriental peoples and

therefore they had their curiosity excited. Learning, which had been confined in the Cosmological Period to a few scholars in the schools, now came forth into the market place. Learning in the fifth century B. C. was drawn from the schools into publicity. The objects of interest had greatly widened and the learning of the scholars began to filter into the general consciousness. Whereas in the sixth century philosophy was a matter between learned men, in the fifth century we find Socrates and the Sophists teaching whosoever would listen.

2. *The Practical Need of Knowledge.* But mere curiosity will not entirely explain the Greek intellectual movement. There had grown up an imperative practical need for knowledge. In Athens and other Greek cities the democracy of the fifth century B. C. had supplanted the tyranny of the sixth century. Duty and inclination together forced the citizen into active participation in public affairs. In these democratic cities family tradition and character were no longer sufficient for success ; but it became generally recognized that the most useful and successful man was the educated man. The complex relations existing between states and between the citizens in the states made education absolutely necessary for the politician. Nowhere was the need of an education more imperative than in Athens ; nowhere was the need more easily filled. In a very short time after the Persian Wars the social position of science changed to one of power ; and the inner character of science changed from the study of nature to the study of ethical and political problems. Scientists became teachers of eloquence, for the citizen now needed to be an orator and a rhetorician. Statesmen and generals must know how to persuade. Courts of law were pub-

lie, their proceeding oral, and personal attendance was therefore required. There was no man in Athens who might not be condemned, if he could not personally in court refute falsehoods and disentangle sophistries. Besides, to be beaten in debate was as disgraceful in the eyes of the public as to lose one's cause.

Two classes of men, with an importance hitherto unknown, appear in Greek history, — the rhetoricians and the dialecticians. *Rhetoric* was public oratory, necessary for the public defense of one's rights, or for the maintenance of one's dignity, or for the gratification of one's ambition. The *dialectic* was, on the other hand, argument employed in private between two persons, usually friends, to unravel an obscurity, to reduce an opponent to silence, to exercise one's self in the mastery of a subject, or to sift evidence. The dialectic, therefore, became a distinct mental pursuit for men who had a natural defect in public speaking or rhetoric. Besides rhetoric and dialectic, there grew up somewhat later what was called the eristic. *Eristic* was polemical argument consisting of catch-phrases and logical subtleties. It was taught as an art of adroit argument.

The great Greek tragedies occupy a place in the development of the dialectic and the satisfying of the need of knowledge. Science, through the drama, transformed the old religious views and brought its new interpretation to the common people. The development of the fifth-century drama out of the epic of the sixth century was not merely a change in architectonic, but a transformation of its ethical and religious spirit. The germ was in the previous ethics, lyrics, and gnomics, yet it was fully amplified in the drama. Instead of a summary of deeds the tragic poet makes his characters talk, defend,

refute, accuse, lament, etc. This gives rise to exigencies that require the dialectic. In the conflicting duties and in the justification of the wrong done by the wrong suffered, dialectical skill is called for in the drama to weigh the ethical motives in a manner that the epic does not demand. Thus the drama of Æschylus, Sophocles, and Euripides was a link between the lyric and gnomic poetry of the sixth century B. C. and the dialogue literature of Plato.*

3. *The Critical Attitude of Mind.* The most important characteristic of this period is neither the intensified social curiosity nor the increased social needs. It is rather ethical in its character. It is the "critical" or "individualistic" attitude of mind. This began with the "free city feeling" — the consciousness of the free man in a free state — in the first half of the fifth century B. C., and developed rapidly into individualism and critical skepticism toward the end of that century.

If one were to compare in a single word the history of Greece before the Persian Wars with that after the Persian Wars, he would say that the former was traditional and the latter was critical. Nevertheless, at the beginning of the Cosmological Period Greek traditional customs were being weakened by attacks upon them. Religious ideas were threatened by the Cosmologists. The subordination of the gods to the cosmic substance was an attack upon the established polytheism of the Epic, and the attack became direct in the hands of Xenophanes. It was "the divestiture of Nature of its gods by science." The Mysteries were a part of this departure from the traditional religion. But the new and more critical scientific attitude toward traditional

* Read Grote, *History of Greece*, vol. viii, pp. 334-347.

religion was only incidental to the growing criticism of law. In the days of the oligarchy there were two self-evident political assumptions: (1) that law has validity because it is law; (2) that obedience to law is for one's advantage. When, however, the political disturbances began, a self-conscious individualism developed among the Greeks. The Gnostic Poets had been the first to appeal to the individual consciousness of the people. All through the sixth century B. C. Greece had stern experiences, and the individual found himself questioning the sanctity of tradition and of time-honored laws. There was no longer a tacit acquiescence in established order, and the claims of authority were no longer, as formerly, unchallenged. Confidence in political assumptions began to waver, and a critical attitude was taken toward laws which changed from year to year. The appearance everywhere of the tyrant, the vigorous personality who could set up his will against the will of a traditional aristocracy, impressed the age with the power of individual egoism. The seat of authority was shifted from tradition to the individual reason, and all institutions were brought under individual criticism.

The Persian Wars mark the point of transition from the traditional attitude to the critical attitude of the Greek mind. In themselves the Persian Wars were a great moral uplift, and were a return for a time to the traditional institutions. The changes long since begun were suspended for a time in the united effort of the Greek nation. But the tendencies became more insistent when the danger was past. The Persian Wars had cleared the atmosphere of its pessimism and had given freedom to the intellectual movement. Then later, in the heat of that intellectual movement, individualism

and criticism came to fullest fruitage. Doubt grew into positive skepticism.

In the last part of the fifth century B. C., critical skepticism became universal. In religion the anthropomorphism of the Epic passes under ridicule. Critias declares that the gods are the invention of shrewd statecraft. In literature the Epic, in which the gods interfere in all human details, yields to the naturalistic descriptions of Herodotus and Thucydides, and to the personal note of lyric and satirical poetry. More important than all was the change of attitude toward the laws. Instead of the law having a divine authority, the individual placed himself above it and sat in judgment upon it. The tribal conception of guilt, that when a member of a tribe sinned the whole tribe would suffer at the hands of the gods, had given way at the time of the Persian Wars to that of personal responsibility and retribution. It was noted that laws change in the same state, that they differ in different states, and that moral customs have a great variety. All laws seem therefore to be made by man, and the question then arose, Is there any law which has universal validity? Is there any real *prius* or "Nature" of laws? In the Anthropological Period, the important question was about the real *prius* or "Nature" of human institutions, just as in the Cosmological Period the question was about the real *prius* or "Nature" of the world of physical phenomena. Yet the question of the Anthropologists was a part of the Cosmological problem. The Cosmologists had called the real *prius* or "Nature" (*φύσις*), that which ever remains like itself, and it is now asked if "Nature" in itself contains any unchanging and eternal politico-moral law. The contrast is thus

drawn for all time between natural law and statute law, and the distinction dominates this period. Human legal institutions were regarded as only makeshifts, and often even as contradicting the divine law. The conflict between natural or divine law and human law appears worked out in the *Antigone* of Sophocles.

The same interest in the foundations of morality and moral relations opened up the whole subject of the power of human consciousness to discern such relations. It was a logical necessity that turned thought from a review of man's relations with his fellows to a criticism of his own constitution. What is man? What are his faculties? Has he any that give him the truth and the reality? Or do they all deceive him so that he cannot detect the real from the sham of life? What are the mental faculties used in disputation, and how are they to be trained so that man may rise to an eminence of culture among his fellows? The Greek thus turned to a criticism of his knowing faculties, and the positive social and moral demands made such a criticism necessary to his well-being. Greek science took a strong anthropological direction, and logic, ethics, psychology, rhetoric, etc., took the place of natural science subjects. The Greek in the fifth century B. C. was interested in man — in his inner activities, his ideations and volitions. Of this critical and individualistic attitude Euripides is the literary exponent; Pericles is the political personification; Socrates and the Sophists are its philosophical expression.

The Significance of the Sophists. The Sophists were the direct means of bringing this intellectual change into Greek life. They were the bearers of this Greek Enlightenment, and they were the missionaries that

spread its influence far and wide. This significance of the Sophists to the culture of Greece was never understood by the historian until Hegel set them in their true light. The dark side of their character has been painted in blackest colors, so that the word "Sophist" has carried an opprobrium with it. They were, however, the exponents of the Greek illumination, and not the cause of it. They therefore share all its weaknesses and its excellencies; and any judgment upon them is a judgment upon the time itself. The most accurate description of them is that they were the exponents of Greek culture in the age of Pericles; the worst that can be said of them is that they stimulated the Greek spirit in directions in which it should have been controlled. Their true work was to carry the gospel of Greek individualism everywhere; their fault lay in the fact that too frequently they confused individualism with hypocrisy, and led their hearers to believe that appearance knowledge is the same as true knowledge.

The word "Sophist" had a development among the Greeks. It first meant a wise man (the Cosmologists, from Thales to Anaxagoras, were Sophists); then a teacher of wisdom; then a paid teacher of wisdom. Moreover, among the Sophists there is a difference between the early Sophists, who were inspired by a distinct desire to spread culture, and the later Sophists, who were mercenary teachers, and had on that account degenerated into mere quibblers. In general, the ground of the contemporary hostility to the Sophists was the hatred of the conservative and reactionary party, to which belonged Aristophanes the satirist, Æschylus "the father of tragedy," and the exponent of institutional morals, and Xenophon, who stood for a complete

return to a patriarchal state. This party was very bitter against the exponents of the new and radical spirit springing up in Greece. All the philosophers of the new learning, including Socrates, suffered at the hands of those who would conserve the old traditions. In particular, the accusations against the Sophists of this period were: they were cavilers; they taught for pay; they represented the universalizing of education against the old aristocracy; they menaced institutions.

The Sophists were then primarily and, on the whole, the transmitters to the people of the culture of the time. They were the teachers of the humanities to that age. They were not technically philosophers, but were interested in philosophical questions. Protagoras was the only Sophist who was the author of any fruitful philosophical conceptions. Gorgias made occasional essays into philosophy. But besides Protagoras and Gorgias no other Sophists can be classed as philosophers, except possibly Hippias and Prodicus.

The Sophists introduced a profusion of knowledge among the people. They made investigations in language, logic, and the theory of cognition. They taught literature, history, grammar, the principles of the dialectic, the cristic, and rhetoric — all subjects concerned with the art of human expression. They studied and taught the special subjects concerned with human relations, like ethics, the theory of knowledge, psychology, and politics. Anything that had a place in Greek culture was systematically and skillfully presented by such men as Protagoras, Gorgias, Hippias, and Prodicus, who were men of encyclopædic erudition. The Sophist took the education of the Greek child at the age of sixteen, after he had received his elementary training, first

at home and then at the hands of the teacher at school. The Greek boy's education was naturally divided into two parts : gymnastics for the body and music for the soul. Under music was included geometry, performance on the lyre, pronunciation, the chorus and poetry, astronomy, physics, and geography. At the age of sixteen he got his instruction by meeting public men, such as the Sophists, in the street, in the Agora, and other public places. It was at this period of his life that the Sophist took his education into those higher branches which were necessary for his success in politics, society, and law. Thus the instruction of the Sophist was usually for a specific purpose, and thus rhetoric, dialectic, and the mental sciences were in great demand.

The Prominent Sophists. The list of Sophists is a long one. The first to call himself a Sophist and a teacher of public virtue was, according to Plato, Protagoras of Abdera. He was also probably the most eminent of the number. He was born about 480 B. C. Polus and Thrasymachus were the last ; and Aristotle mentions the Sophists as in the past. So that we may conclude that as a band they existed only one hundred years (450-350 B. C.). Already at the beginning of the fourth century (400 B. C.) their importance had greatly diminished. In this hundred years we find some fourteen or fifteen prominent Sophists. There is, first, Protagoras, whose theory of knowledge is not only in itself a contribution to thought, but also of importance as a factor in forming the materialist atomistic doctrine of the school of Abdera, — the school of Leucippus and Democritus ; Gorgias of Leontini, the head of an embassy to Athens, a man of eloquence, whose style was imitated by Thucydides and whom we might have stud-

ied in connection with the Eleatic school, for he carried out still further the doctrines of Zeno ; Prodicus, the pupil of Protagoras and Gorgias, a brilliant man and a traveler, whose method of instruction was used by Socrates ; Hippias, contemporary of Prodicus, remarkable for his mathematical, physical, and historical erudition, and a man full of vanity ; the brothers, Euthydemus and Dionysiodorus, teachers of eristic ; the rhetorician Thrasymachus and the rhetoricians of the school of Gorgias, viz., Polus, Lycophron, Protarchus, and Alcidas ; Evenus, rhetorician, moralist, and poet ; Critias, the leader of the thirty ; Calicles and Hippodamus.

Many of these men were reformers. Some (as Alcidas) were opposed to the institution of slavery in Greece ; some to marriage ; some (as Lycophron) to the nobility ; some to the inequality of property ; while Hippodamus was the first to propose an ideal state.

The method of argumentation employed by the Sophists was first to perplex and confuse their opponents as to what had been taken in the past as valid. Then they made their opponents ridiculous by drawing out consequences from their statements. Their conclusions were often verbal and their witticisms vulgar.*

The Philosophy of the Sophists. The philosophy of the Sophists was only the logical following out of the general attitude of the time toward all traditions. The more the old physical theories fell into disrepute, the more the changes of the world of politics seemed to indicate instability everywhere, the more opinions differed on the same subject, — so much the more did the possi-

* Read H. Jackson in *Encyclopædia Britannica*, article "Sophists."

bility present itself to the Sophists of taking two contradictories as equally true, and so much the faster did the whole Greek world lose faith in any valid truth and in any certain knowledge. The dogmatism of the Cosmological Period is thus naturally followed by the skepticism of the Anthropological. Beginning with the cautious and enlightened relativism of Protagoras, there grew up a volume of criticism, until the later Sophists applied destructive doctrines to everything. The best representatives of the philosophical aspect of the Sophistic movement were Protagoras and Gorgias.

1. The Relativism of Protagoras. Although theoretically skepticism is the centre and logical result of the Sophistic movement, the teaching of the greatest Sophist, Protagoras, cannot be strictly called skepticism. Philosophically, skepticism is not the denial of this or that particular belief as true, but the denial of the existence of any truth whatever. Protagoras refused to make any positive statements — either in denial or affirmation — about ultimate truth, because, as he said, we have no insight whatever into the nature of absolute truth. Our knowledge is confined to motions and the phenomena of motion. His teaching would be called in modern times relativism or phenomenalism. The fundamental principle beneath such a doctrine is that knowledge is human — never absolute, but always relative.

The relativism of Protagoras was based on two principles: the first is that of universal change, which he borrowed from Heracleitus; the second is, so far as we know, original with Protagoras, — that sense-perception is the only source and only kind of knowledge. In Heracleitus' doctrine change is universal, each term of a series of changes passing into another. The senses are a

part of this flux, and since they are, according to Protagoras, the only source of knowledge, knowledge is ephemeral and unreal. Reason is extended and continued sensation. A movement external to the organism stimulates an organ of the body and is met by a reacting movement of the organ. The result is perception. Perception being itself a process, each present moment of perception is the only knowledge. We cannot know things as they are in themselves; there is no insight into the Being of things over and above our perceptions. On the contrary, reality is not only what it perceptually appears for each individual, but also what it appears at each individual momentary perception.

What is the result of such a theory of knowledge? Protagoras expresses it well in his famous words, "Man is the measure of all things." It is absolute sensationalism. There is no truth except that of the present moment. Each man sees the truth for himself at the moment of his perception. It does not matter if another has a different perception. It does not matter if at the next moment his perception differs. Each perception exists at the moment, is true, and at that moment is the only perception. There are as many truths as there are individuals, as many as there are moments in an individual's life. Each individual is the measure of the true, the beautiful, and the good; for a thing that is good or true to one man may be harmful or false to another. Metaphysical discussions are vain, for the only reality to prove is the content of the present moment. All causes and ultimate criteria are impossible to be known.

2. The Nihilism of Gorgias. As the philosophy of Protagoras teaches that everything is equally true, that of Gorgias teaches that everything is equally false.

Gorgias declared that Being, knowledge, and the communication of knowledge are impossible. Starting from the dialectic of the Eleatic, Zeno (as Protagoras started from that of Heracleitus), Gorgias maintained: (1) Nothing is; (2) If anything is, it cannot be thought; (3) Even if it can be thought, it cannot be communicated. The knowledge of the thing is different from the thing; the expression of the thought in words is different from the thought itself.

The Ethics of the Sophists. — The Application of their Critical Theory to Political Life. The ethical-political life was of paramount importance to the Greek. When the later Sophists began to scrutinize it from the point of view of the individual, their skepticism became a direct menace to Greek political institutions. The individual became a law unto himself, and the citizen set himself up as superior to society. Since the time of the Gnostic poets the content of both moral and political laws had become more and more a subject of reflection; and at the time of the Sophists the whole foundation of law was called in question. When the individual man is declared to be the measure of all things, all legal and moral institutions hang in the balance. All rules of conduct and all laws become then artificial and merely conventional products; and just as there is no standard of truth or error in knowledge, so there is no standard of good citizenship or morality. The good man is the prudent man; the good citizen is the successful and powerful man. Might is right.

Thus the Sophists came to teach such doctrines as these: Laws are made by the strongest, represent their will, and must be obeyed if they cannot be disobeyed;

it takes a strong man to make a law, but a stronger to break it; the laws are only conventions invented either by the many to restrain the powerful few, or by the few to enslave the many. Even religions are devices of the crafty to enchain the people. Obedience to law is therefore a matter of personal interest. Happiness is the most important consideration of the individual. Sometimes personal interest conflicts with law and law does not then bring happiness, for criminals are often the most happy. It is not obedience to law that brings happiness but (Polus) a shrewd calculation of ends with no regard to right or law. The Sophists made no attempt to put their theories into execution. They expressed the sentiments of the Greek people, and Greek public opinion then pointed to segregation and individualism. Plato said that, after all, the Greek public was the great Sophist.

It was thus that the distinction arose between positive law and natural law. Reflecting upon the differences among the constitutions of the Greek states and upon the constant alterations in these constitutions, the Sophist concluded that the greater part of them were of human invention. They were positive laws and were to be contrasted with natural law, which was such law as is binding on all men equally. Natural law is therefore of greater worth than positive law, and is set in antithesis to it. Sir Henry Maine says in his *Ancient Law* that the Greeks did not found any system of jurisprudence, because natural law was always referred to by them in arguing any question. The only way to find natural law is to strip it of the mass of conventional laws. The word "nature" has been in its history one of the most ambiguous of words; and Protag-

oras' teaching that "nature" consists of primary ethical feelings is hardly a complete and satisfactory definition. The more the theory of the Sophists limited "nature" to human nature, and to human nature in its capricious and individual aspects, so much the more did statute laws appear antagonistic to natural law and seem to be detrimental to it.

Summary.

1. Although a skepticism and a criticism, Sophistry was a relative advance over the traditionalism and dogmatism of the Cosmologists.

2. Sophistry turned the attention to man and his interests as the principal object of inquiry.

3. The Sophists stood for freedom of thought by pointing to individual consciousness as the final court of appeal.

4. Although the Sophists differed very much in their teaching, they had a mutual dependence and common presuppositions.

5. The Sophists disregarded the likenesses and emphasized the differences among men.

6. The Sophists built up their doctrines upon the basis of a sensationalist psychology.

CHAPTER V

SOCRATES (469-399 B. C.).

Socrates and Aristophanes. There were two ways in which the other elements in Greek society tried to meet the Sophists. One was led by Aristophanes, the other by Socrates. Aristophanes was a rich nobleman who looked back with pride upon the good old times. He would have a government of the best rather than of the many. He would destroy the Sophistic movement, and he wrote many satires upon Greek life with that end in view. His satire, *The Clouds*, is of especial interest in this connection. Socrates represents the other way in which the Sophistic movement was met. He accepted the Sophistic movement, but he read more deeply into it than the Sophists themselves, and he tried to find its truth.

The extraordinary personality of Socrates is the central figure in this age of critical inquiry. For the first time do we find philosophy centred in a great personality, and there is no more picturesque figure in history. The exposition of his doctrines is essentially a biography. He wrote nothing himself, and the literary sources of his life and teaching are found in Xenophon's *Memorabilia* and *Symposium*, in the writings of Plato, and in those of Aristotle. They throw different lights upon his character, and together give a fairly complete picture. Xenophon records the sober, practical, and popular side of Socrates, caught in casual conversation. Plato idealizes Socrates, especially in his

later writings, and he reveals Socrates' character on its imaginative and spiritual sides. Aristotle is more discriminating and less sympathetic, but always reliable because he is a generation removed.*

The Personality and Life of Socrates. Alcibiades described Socrates as like the little cases sold upon the streets of Athens, which were made in the shape of Silenus and contained a carved image. The description was apt, for Socrates had a fine spiritual nature within an astonishing shell. He was short, stout, and thick-set, with his head set upon his shoulders. His eyes were

* The student should read the following references in Plato's dialogues and Xenophon's *Symposium* and *Memorabilia*. The translations referred to here are Jowett's Plato and Cooper, Spelman, etc., translation, *Whole Works of Xenophon*. (1851.)

For the method of Socrates, read *Charmides*, *Lysis*, and *Laches*.

For the personal appearance of Socrates, read Plato, *Symposium*, pp. 586 ff. and Xenophon, *Symposium*, p. 615.

For the physical endurance of Socrates, read Plato, *Symposium*, p. 591.

For Socrates' dislike of nature, read Plato, *Phædrus*, p. 435, and Xenophon, *Memorabilia*, p. 521.

For the charges, defense, and trial of Socrates, read Plato, *Apology*, pp. 116 and 129.

For the confinement of Socrates in prison, read *Crito*, beginning and end of the dialogue.

For description of the death scene of Socrates, read Plato, *Phædo*, beginning and end of the dialogue.

For description of the dæmoniacal sign, read Plato, *Apology*, pp. 125-126, and Xenophon, *Memorabilia*, pp. 531 ff., 585 ff.

For the oracle's statement that Socrates is the wisest of men, read Plato, *Apology*, p. 114.

bulging, his nose flat with upturned nostrils, his mouth big and grinning, and his beard disordered. His protruding belly was set upon slender legs, and his dress was slovenly. Nevertheless his geniality, his fine humor, the unselfishness which he manifested unstintedly toward his friends, exercised an irresistible charm upon all the remarkable personalities of his time. Over the Athenian youth his influence was very great, and he surrounded himself with a large circle of admirers, to the neglect of his home cares and his wife Xantippe. While the habit of the Sophists was to talk in private and for pay, Socrates was distinguished from all his contemporaries by the fact that he would talk in the public places with any one, rich or poor, and without remuneration.

His life had its ascetic side. He was frugal in his needs. He went barefoot, summer and winter, and his clothing was the scantiest. He was abstemious in food and drink. While on occasion at the feast he would drink more wine than any one else, yet he never was seen intoxicated. The ascetic side of his nature is seen in his refusal to cultivate gymnastics, because such training required much food. He tried to limit his wants. He was a model of hardiness, self-denial, and self-mastery, as many an anecdote will show. "No one ever saw or heard anything wicked in Socrates," said Xenophon. "So pious was he that he never did anything without first consulting the Gods, so master of himself as never to prefer pleasure to goodness, so sensible as never to err in the choice between the better and the worse. In a word, he was the best and the most happy of men."

At times Socrates seems intellectually stiff and pro-

saic. This may have been incidental to his asceticism, or the result of it. He was indifferent to the sensuous, and he explained the beautiful in terms of the useful. He refused to walk out because trees and flowers could teach him nothing. Art offered no suggestions to him, for it is useless even if it is inspired. His unpoetic and prosy nature was perhaps not due so much to his lack of taste as to his original mind overflowing with ideas. He was not perceptive, but reflective. He said that astronomy is a mystery, geometry is land measuring, which any man can do, arithmetic is merely permissible, and physics something to be neglected. "Ye may judge how unprofitable these studies are by seeing how men differ among themselves." He was once found dancing at home by himself when he was expected to be at a dance with others, and his practical nature is also revealed in the fact that at the feast he was reminded of its utility.

The influence of Socrates' dæmon or divine voice upon him is very interesting. He felt himself divinely called by his dæmon (*Apology*, 29, 33 f.) to unremitting labor in the moral perfecting of society through an examination of himself and his fellows. Socrates was moved by a deep religious feeling in all that he undertook. This divine leading is what he designates as his dæmon. He speaks of it as "the God" or "the gods" which speaks to other men through the oracles. This divine voice was ever with him, but as to specific actions it only warned him against the injudicious action, never incited him to the correct action. Specifically it did not tell him what to do so much as what not to do. When he was about to prepare a defense beforehand that he should make to the judges, his dæmon interposed, and so he relied upon the inspira-

tion of the moment. On one of his campaigns he was observed to stand in communion with the dæmon the whole day, unmindful of the weather.

As to the education and intellectual training of Socrates, one must say that it formed a factor of less importance in his life. The uniqueness of Socrates' character is only in small measure to be accounted for by his environment. He was one of those men who would have been great in any time. He got but little from his father, who was a sculptor, or from his mother, who was a midwife. He was not strictly an educated man, although he had the early education of an Athenian youth, and of course no one could grow up a citizen of Athens in the time of Pericles without absorbing its culture. His formal education probably consisted of music and gymnastics, and he was certainly familiar with the preceding schools of philosophy. Socrates lived a long life of contented poverty, and he dedicated his life to the public. Two inherited instincts were strong within him, which alone will account for his career: (1) his strong religious persuasion that he was acting under a mission from the gods; (2) his great intellectual originality, as shown in his teaching and in his power over others.

There are few striking events in Socrates' career, except his death. He was born in Athens in 469 B. C. He began his divinely appointed work of redeeming Athens from the dangerous tendencies of the Sophists at the commencement of the Peloponnesian War. He served in three campaigns as a soldier. He also acted, when called upon, as prytanis, or lawgiver, although he stood aloof from political activity. At the advanced age of seventy he was accused of corrupting the youth

and denying the gods. His life thus far would have seemed to be one of unimpeachable moral and brilliant intellectual monotony. But his death illuminates his life and makes it heroic, because his death shows what in reality his life was, — the tragic epitome of the Athenian social situation. His death was not due to himself, although he could have escaped, nor to his judges, although they could have acquitted him. It represents the inevitable conflict between the Greek ideal of universalism and Greek individualism. Its value is therefore historic. His particular accusers were actuated by personal animosity. Behind them were many others whom his efforts at reform and his bitter irony had made hostile. Behind all was the voice of Athenian conservatism against the Athenian culture movement. The charges against Socrates were in part true, and besides as a moral reformer he had been a public nuisance. Yet his death was a judicial murder. He was found guilty by his judges. To the sentence of death proposed by Meletus, one of his accusers, Socrates had the right to propose an alternative sentence, and the judges must choose between the two. Had Socrates proposed a small fine, it would probably have been accepted by the judges. He proposed, however, that Athens provide for him at the public expense, arrogant as he was in his complacent sense of virtue. The judges then could do nothing else than pronounce the sentence of death. This was delayed thirty days on account of the sacrifice at Delos. Even then Socrates could have easily escaped from jail. But he refused to do the law a wrong, and drank the hemlock in May, 399 B. C.

Professor G. H. Palmer points out the irony that characterizes the life and death of Socrates. He stands

for the harmony of opposite qualities. He devoted himself to the good of Athens, and yet Athens put him to death. In the service of the eternal was he sacrificed. His own personality is an exemplification of this irony. In appearance his un-Greek physical ugliness is in contrast with his beautiful Greek soul ; he was the most austere and yet the most sensitive of men ; he was always a serious moralist and yet always a jester ; he was scarcely out of Athens and yet he was a world's man ; he was the world's philosopher and yet he had no system of thought and left no writings.

Socrates and the Sophists. *In his point of departure* Socrates is in entire agreement with the Sophists. He is a critical philosopher. Criticism is the starting-point of his philosophy as a whole, and he begins each particular argument afresh with a critical examination of its grounds. This means that he, like the Sophists, turns to the individual reason as the final court of appeal. Like them he refused to accept any traditional dogma unexamined, and he commenced a critical inquiry into all kinds of conceptions. Socrates and the Sophists are one in the spirit of the Greek illumination in their critical attack upon intellectual problems. Socrates' famous saying that "virtue is knowledge" could equally well be put into the mouth of Protagoras ; and the doctrine of Protagoras that "man is the measure of all things" could be ascribed to Socrates without inconsistency.

In his conclusions in one respect Socrates arrives at the same point as the Sophists, — but in only one respect. He agrees with them as to the worthlessness of the results of natural science. Natural science cannot be worth while, because it does not lead to moral

excellence. The meagre results of the Cosmologists show the worthlessness of natural science to man. In this one respect Socrates' criticism leads him to skepticism like the Sophists, — to a skepticism of natural science.

But in his conclusions as to the value of human nature, Socrates set himself entirely against the outcome of the reflections of the Sophists, and indeed of his time. In the absorbing anthropological topics of his time, he laid the foundations of a constructive philosophy against the skeptical conclusions of the Sophists. In human matters he maintained that there is a validity to truth and a possibility of absolute knowledge. He admitted with the Sophists that there are obscurities in human thought, and that obviously the standard of truth does not belong to any one man. But while the Sophists emphasized these contradictions and reasoned therefore that no valid truth existed, Socrates cut his way through such contradictions and obscurities, emphasized the identity in men, and maintained that the truth is in all men together, — in humanity. It exists as an ideal to be striven for by men together. When Protagoras says that "man is the measure of all things," he means by "man" the individual man; while Socrates, if he had used that expression, would have meant "humanity." And Socrates means by his principle "virtue is knowledge" that the knowledge of that same humanity (*i. e.* insight, reason) is virtue; while Protagoras, agreeing as he did formally with the maxim that "virtue is knowledge," would always define "knowledge" as the individual feelings. "The individual man is the measure of all things," Protagoras would say; "Humanity is the measure of all things," Socrates would reply. "Virtue is knowledge gained by the feelings," Protag-

oras would say; "Virtue is knowledge gained by the reason," Socrates would reply. Beneath the changing capricious individual, beneath the variety of men, Socrates believed that there was a common humanity, one unchanging man, who contained the ultimate truth. There are many opinions, ideas, and feelings, but only one knowledge. This knowledge is rational; and human nature is a unity in the possession of this knowledge.

This is the principle that distinguishes Socrates from the other leaders of the Greek Illumination. While he was imbued with the motives of the Greek culture of his time, — curious about its results, feeling its usefulness, and critical of all tradition, — he nevertheless withheld himself from its skeptical conclusions. Any culture illumination runs the danger of defeating itself and becoming skeptical of its own powers. This is what actually happened in the Sophistic philosophy. But when Socrates set himself against this superficial and self-destructive outcome of his age, he became in his constructive philosophy the clearest and most comprehensive expression of that age. Because he grasped the principle of the Greek Enlightenment deeply and formulated it constructively, his intellectual reign became historically established. The fundamental principle of the philosophy of Socrates was therefore the real principle of classic Greek civilization, and by saving that principle he saved Greek civilization for modern Europe.

The Unsystematic Character of the Socratic Philosophy. The casual reader is often troubled to know for what precisely Socrates is searching. The vagueness of the Socratic quest is partly due to the fact that he had no system. Indeed, he had no groundwork for

a system of thought. His psychology or theory of the human mind was undefined. He speaks of sensations and perceptions, but they, with the feelings and the will, are considered by him to be unimportant factors in the conscious life. On the whole, the mind was thought by him to be an aggregation of conceptions or ideas. The feelings cloud the activity of these conceptions, and the only feeling to which Socrates attached any importance was his dæmon or divine voice. This grew to be his mentor as he grew older. Socrates never made a scientific psychological analysis. He began rather with three assumptions which amounted to convictions. They were these : *that only by acquiring conceptions is true knowledge to be found ; that virtue consists in acting according to conceptions ; that the world has been designed according to conceptions*. Conceptions were, so to speak, an obsession with Socrates.¹ They were his postulates, his instruments, and his goal. The other factors of the mind were neglected by him.

The Ideal of Socrates. The goal of the quest of Socrates is an ideal, and in the nature of things had the vagueness of any ideal. The content of an ideal has to

¹ What is the difference between perception and conception? We have heard a good deal about perceptions in the doctrine of Protagoras. We have now reached a point where many of the theories will involve a comparison of perception with conception. An understanding of the difference between perception and conception will be necessary for an understanding of the doctrines, especially of Democritus, Plato, and Aristotle. In general, perception is the consciousness of an object in which some actual sensation of it is present ; a conception is the consciousness of an object in which no actual sensation of it is present. Thus I perceive a tree, when my retina is actually stimulated ; I conceive a tree, when I turn my head away and no sense organ is actually stimulated, i. e. I do not touch, see, hear the tree. To the Greek the perception was particular and transient ; the conception was, on the other hand, universal or general and permanent.

remain undefined until it has been gained by experience, and then of course it is no longer an ideal. Any ideal, however, can be stated formally, and the formal and deductive side of knowledge has had an important place both in practical conduct and in the history of science. Socrates could state his ideal formally and to some extent he could give it content; but it always remained for him an object to be sought. He believed that the ideal lay in conceptions and could be found if he got the truth of any one conception. So he undertook to define such conceptions as friendship, courage, prudence, etc., but his search was never satisfied. Nevertheless, the search itself was scarcely less important to him than its accomplishment.

The ideal of Socrates was *Knowledge* or *Wisdom*, and his formal statement of the ideal was *Knowledge is Virtue*. The primal end to be striven for is wisdom, that is, in conceptions and by conceptions. But where are these conceptions to be found but in one's own mind? Therefore the region of the quest of Socrates was his own mind, and his motto was, "Know thyself." And what is this Virtue of which knowledge or wisdom is the equivalent? It does not mean virtue in the narrow modern meaning of the term, nor yet in the narrow original meaning, of warlike prowess or valor. The Greek word which Socrates used was ἀρετή, and is best translated excellence or ability. In the history of the word it had a variety of meanings, like the Latin word *virtus*, whose equivalent it is. It is derived from the same root as the word Ἄρης, Ares (or Mars), the name of the god of war. While therefore originally it meant military valor, it came to mean any kind of excellence. In modern times there appeared a book called *The*

Greatest Thing in the World, which had as its aim to show that Christian love is the "greatest thing in the world." To Socrates not "Love" but "Wisdom" is the "greatest thing in the world," and Greek civilization is thus contrasted with that of Christianity.

But now the question comes, What kind of knowledge or wisdom does Socrates mean as the greatest excellence? In contrast to the Sophists, who relied upon the sensations and impulses as wisdom, Socrates turned to that element which had been the decisive factor of the culture of the time. This was *insight*. The greatest excellence is insight. He who acts according to his feelings is not sure of his knowledge, but he who acts according to insight has the greatest excellence in the world. But Socrates restricts the meaning of knowledge still further. Not only is knowledge to Socrates insight, but it is *moral* insight. For the problems in which he was interested were the problems of human life and principally the problem of self-examination. Thus we can translate the conventional formal statement of Socrates, viz., *Knowledge is virtue*, into this rather longer sentence, *Moral insight is the most excellent thing in the world*. For the first time in the history of thought philosophy is founded upon a moral postulate.

What the Socratic Ideal involves. We have now examined the meaning of the formal statement of the Socratic ideal. A further question along this same line concerns what that ideal involves.

1. In the first place, to possess knowledge is to act righteously. Knowledge = righteous conduct. Socrates does not mean that knowledge is merely the *condition* of right conduct; he means that knowledge actually *constitutes* moral conduct. The development of the

reason is actually the same as the development of the will. Knowledge is virtue and virtue is knowledge. Vice is ignorance and ignorance is vice. To have an insight into the truth is the principle of living. Not only is deficient insight the cause of evil, but it is itself the greatest evil. Not only does a man act wrongly because he does not know the good, but not to know the good is the greatest wrong that can happen to him.

2. Not only is moral insight the same as virtuous activity, but this insight is always accompanied by happiness. The will follows the recognition of the good, and the appropriate action makes man happy. Happiness is the necessary result of moral excellence. The Wise Man knows what is good for him and does it; thus in his performance he becomes happy. Socrates would subscribe to the proverb "Be good and you will be happy." Such teaching on the part of Socrates implies that he believed two things: (1) that man by unremitting earnest examination of himself and others could gain such perfect happiness; and (2) that the world is under providential guidance. Socrates never expressly denied the existence of the Homeric gods and never expressly declared himself a monotheist. He is, however, always referring to one over-ruling wisdom. He had a personal conviction of immortality, but he never attempted its proof. Although Socrates had little confidence in human knowledge about the world of physical nature, he was animated by a belief that amounted to a conviction in the providential arrangement of the world. In such a divinely ordered world the good must be happy. Only a perfect wisdom can, however, be certain that always the results of his actions will gain happiness in the environment in which he lives; but still man can be sure

that happiness increases proportionately with knowledge. Greek philosophy did go beyond this point in ethics, and this is called, in technical language, *eudæmonism*. *Eudæmonism* and *hedonism* are pleasure theories that are similar. *Eudæmonism* is the theory that active well-being is the highest good in life and that that good is always accompanied by pleasure. In *hedonism* pleasure is the good to be aimed at. In history *eudæmonism* has easily degenerated into *hedonism*.

3. Socrates makes moral insight the same as virtuous activity, and he says that its inevitable accompaniment is happiness. Does he also make moral insight the same as utility? According to Xenophon, Socrates regards moral excellence as that which is most useful. Indeed, in some of the Platonic dialogues Socrates seems to define insight as the art of measuring or prudence, and it is pointed out that Socrates developed no virtue so fully as self-control. In the exigencies of the argument Socrates also often resorted to the useful to define the good. The question, What is the good? often resolves itself into the other question, What is the thing good for? Indeed, the form of the argument often assumes the vicious circle: Why is the act just? Because it is useful? Why is it useful? Because it is just. For the purposes of disputation, in which Socrates was always shrewd and not always scrupulous, he so frequently refers the good to what is suitable to men's happiness and profit that his philosophy does not seem to rise above the relativism of the Sophists. But it is certain that Socrates strove to transcend this relativism, although not with full success and although his formulated teaching does not always go beyond it. However, that he believed in an absolute rather than a relative good ap-

pears in many ways: in his doctrine that it is better to suffer wrong than to do it; in his strict conformity to law rather than to save himself from death by breaking the law; in his constant interpretation of life as right-doing, ethical improvement, and participation in the good. The utility that is always in the background of his thought is *the usefulness for the soul*. We may conclude, therefore, that it was only superficially for the purposes of argumentation that Socrates made the useful an equivalent of moral insight.

The purpose of Socrates was, after all, not to teach men to think correctly nor to become cultured but to become happy and useful Athenians. Moral excellence is the Socratic goal; and knowledge, happiness, and usefulness are only aspects of that goal. Knowledge is the essential means, happiness the essential result, and usefulness the essential sign of moral excellence. It follows as a corollary from Socrates' philosophical ideal that he should also teach: (1) that virtue is teachable, and (2) that the virtues are one. Virtue is obviously teachable if it is knowledge. It follows also, although not so obviously, that all the virtues are fundamentally the same, and that a man cannot be virtuous in one thing without being virtuous in all. The really temperate man is also courageous, wise, and just.

The Two Steps of the Method of Socrates. The external form of the method of Socrates was conversation. Thinking was to him an inner conversation. The result of a conversation, external or internal, was evolvment, — the implicit in thought made explicit. This was quite opposed to the method of the Sophists, which was the supplying of knowledge. Socrates did not propose to start from any kind of knowledge except the ideal to

be striven for. Starting with the presupposition that man contained knowledge, the end which Socrates attempted to reach by his method was a practical one. With so much in summary, let us examine the two steps of the method of Socrates.

The first step that Socrates deems necessary for man in attaining this ideal of moral excellence is negative. Indeed, it is more, — it is complete abnegation on the part of the seeker for truth. One must confess that he himself knows nothing, and come to a realization that his untested individual opinions are not the truth. He must approach the subject as a seeker and not as a teacher. This attitude of mind is the beginning of wisdom. Plato relates how the Delphic oracle amazed Socrates by announcing that he was the wisest of the Greeks. In reflecting upon the statement of the oracle he came to agree with the oracle because, as he said, he was ignorant and he knew it, while the other Greeks were ignorant and did not know it. Before Socrates began to examine any conception, he professed or assumed to profess absolute ignorance of it. He is the modest inquirer. He is always described in the rôle of the questioner who is seeking information and light.

He laid the same requirement upon others that he did upon himself. The dialectic conversation could not be successfully carried on unless his interlocutors had the same recognition of self-ignorance, — the same measure of self-knowledge. The Sophists with whom he often carried on his discussions laid claim to knowledge on every known subject under the Greek sun and were ready to teach anything to the Greek youth. To Socrates' mind nothing could more impede his undertakings than such an affectation of wisdom ; to the Sophists nothing

could be more repugnant than such a confession which Socrates always obliged them to make. Although professing to be only a seeker for knowledge, he tried first by his questions to scrutinize and to break down with his exasperating logic the half-formed conceptions of the egotist. This clear-cut analysis for purely destructive purposes, which he used in preparation for his later constructive conversation, is called the *Socratic irony*. As he proved himself superior to any of his companions in the use of the dialectic, he could begin his conversations in the most destructive fashion. His method was destructive of all prejudice and preconceived opinion that would in any way stand athwart perfectly free inquiry into the truth. His wish was to begin *de novo* with every one, so that all traditional beliefs having been given up and the investigators having confessed their ignorance, constructive study of the concept in hand could be begun.

The second step in Socrates' method of dialectical inquiry follows upon the initial destructive criticism. It is in this part of the conversation that we find his own constructive theory. The dialogue is, of course, its necessary condition ; for the truth is not in me nor in thee, but in us all. It is latent in the mind and not on the surface of any opinion. Let us rub our minds together. Let us sift our varied concepts, unfold our real selves, and bring the unborn truth to the light. Our ideas supplement one another and have a common ground. Intellectual intercourse is an intellectual and a personal need, for it reveals common sympathies and a oneness of life. Common love of knowledge makes friends, and this mutual intellectual helpfulness he calls by the mythical term *Eros*. Inquiry is indefinite in duration ;

the quest of truth is endless; and Socrates acknowledges by his fresh beginnings again and again his failure to reach the ideal. Thus the theoretical self-abnegation of Socrates had a twofold significance in his constructive philosophy. On the one hand, it was an invitation to his countrymen to help him in his search for the universal truth; on the other, it was an acknowledgment that he had failed to attain that universal truth.

Socrates and Athens. Socrates had a religious reverence for his own mission in the Athenian community. He was the "gad-fly of the Athenian public"; he was the educator of the time; he was divinely appointed to the Athenian people. He felt himself so necessary to the Athenian State that at his trial he proudly suggested that instead of punishing him the State keep him at the public expense in the Prytaneum. But the educator creates nothing; he only awakens and develops the germs of knowledge that lie latent. The human Athenian nature is big with truth; Socrates was divinely appointed to bring it forth. He called his method, after the profession of midwifery of his mother, the *maieutic method*. It was intellectual midwifery, and he was the intellectual midwife of Athens. Although he failed to find any concrete form of ultimate truth, he never had any doubt about the correctness of his method and of undertaking the problem afresh. He believed that his failure was due to the inherent weakness of human discernment; and so far as man's discernment or insight is clear, so far will he know the true significance of things.

Socrates believed in man, and he believed that in man were contained all those elements that make up a

firm, rational, and moral society. Since he failed to justify this belief in a theoretical way, his belief became largely a matter of faith. Humanity is something to be won, something to be developed. He was personally the embodiment of his faith, and his large influence was due to his unswerving confidence in ethical ideals that did not allow the least paltering.

The Logical Expedients of Socrates. The examination of concepts by Socrates was an attempt to find a logical "Nature," just as the Cosmologists had searched physical phenomena to find a physical "Nature." This makes Socrates the first to teach by induction and one of the first to use definition effectively. In contrast to the Sophists, he tried to give words exact meanings; for the Sophists fixed artificial meanings to words with reference to particular objects. In seeking for the exact meaning, Socrates was looking below the changing particulars to the "Nature" of the fact and the universal principle. Thus he was making his hearers conscious of the logical dependence of the particular upon the universal. The universal is that which is common to all particular conceptions or opinions. It lies beneath them and binds them together. Thus, by logical analysis, Socrates is taking steps in the educational process of gaining the universal. Provisional definition would be given by him in some dialogue; this definition would be tried by many facts; thus an advance would be made toward a true definition and a universal principle. This process is that of induction. It leads to generic concepts by comparison of particular views and individual perceptions, by bringing together analogous cases and allied relations. The subordination of the particular under the universal thus became a principle of science.

However imperfect and childlike was Socrates' method of procedure, whatever lack of caution in generalization and in the collection of material, however hasty oftentimes his judgments, he nevertheless made the subordination of the particular to the universal a principle of logical procedure. Xenophon says that Socrates was untiring in his efforts to examine and define goodness and wickedness, justice and injustice, wisdom and folly, courage and cowardice, the state and the citizen.

Socrates and the Lesser Socratics. The death of Socrates proved to be his transfiguration. His influence, widespread and profound, came more from his personality than from his formulated theory. He was a revelator without a revelation. An absolutely true end of life, the Good, he firmly believed to exist; but it was an ideal to be won by each and all. After him, therefore, there was opportunity for various interpretations of his doctrine, and several schools were founded by his disciples. His truest and most discriminating pupil was Plato, who is in a class by himself as developing the philosophy of Socrates to a systematic perfectness. The philosophy of Plato stands with that of Democritus and Aristotle as one of the three systematic philosophies that Greek civilization produced. Besides Plato there were the Lesser Socratics: Euclid (not the mathematician), Phædo, Aristippus, and Antisthenes. Each of these was respectively the founder of a school. These four Lesser-Socratic schools were that at Megara founded by Euclid, the Elean-Eretrian founded by Phædo, the Cynic founded by Antisthenes, and the Cyrenaic founded by Aristippus. The influence of the Megarian and Elean-Eretrian schools was unimportant. It may suffice to dismiss them by saying that Phædo was the favorite pupil of Socrates,

and that Plato was a member of the Megarian school for a short time after the death of Socrates. The two other Lesser-Socratic schools had an important influence upon contemporary and later civilization and will be mentioned here. These are the Cynic and Cyrenaic schools. In these two schools two great types of ethical theory that have since existed were formulated. All four of the Lesser Socratics pretended to be the true development of the teaching of Socrates ; and these two, as well as the other two, differ in the accentuation that they place on some phase of the master's doctrine.

Socrates' own definition of ideal excellence being incomplete, the Cynics and Cyrenaics tried to define it, to give it content and to show a practical way of reaching it. They attempted

(1) to answer affirmatively that there is a universal validity ;

(2) to show in what it consists ;

(3) to show how man must prepare himself in order to reach it.

Both schools are individualistic and eudæmonistic. They maintained that to affirm that the Good is good for its own sake is to leave the Good contentless ; and to affirm that the Good is insight into the Good is to go in a circle. The one unambiguous answer to the question of Socrates, What is ideal excellence or the Good ? is this : Goodness is happiness. This gives a content to the otherwise contentless ideal of Socrates. The difference between the two schools consists in the ethical way in which this happiness may be obtained.

It will appear, therefore, that the Lesser Socratics were more Sophistic than Socratic. They were diametrically opposed to Socrates' theory of the universality of

truth. The excellent Good must be sought by each in his own way. This is individualistic virtue, and not that of humanity. Civilization was valued by them only as it satisfied individual needs. The common problem of individualistic happiness limited the efforts of both schools, while the results that they reached in solving it were quite different.

There are two ways of achieving happiness ; one is by satisfying the desires, the other is by cutting off the desires. For happiness is the perfect proportion of desire and satisfaction. A living creature is happy if his desires are satisfied, whether those desires be few or many. In the theory of the Cyrenaic school, happiness is gained by increasing the satisfactions ; in the theory of the Cynic school, happiness is gained by decreasing the desires.

The Cynic School was founded by Antisthenes, and numbered among its adherents Diogenes, about whom so many curious stories have been told, Crates of Thebes, his wife Hipparchia, and her brother, Metrocles. Virtue in the eudæmonistic sense is the only end, and this school agreed with Socrates that this end is to be attained by knowledge. That is to say, virtue or knowledge is only a means of gaining happiness, and all other possessions the Cynics affected to despise. Virtue as knowledge is therefore to be sought ; ignorance is to be shunned ; all else is a matter of indifference. Riches, luxury, fame, honor, sense-pleasure and pain, and later with logical consistency all shame, convention, family, and country were objects of contempt. Man must make himself independent by cutting off the desires which he cannot satisfy or the desires that seem superfluous. He should keep alive only such desires as are necessary

to existence. In independence of all outward circumstance the Cynic conceives himself to be the Wise Man, in contrast to whom the mass of men are fools. The Cynic is, therefore, the equal of the undesiring gods. He has independent lordship and does not need the artificialities of civilization. Natural law was contrasted by him in a Sophistic way with statutory law, and in the midst of the refinements of society he preached a return to a state of nature.

The Cyrenaic School was founded by Aristippus, who lived in Cyrene, a luxurious city of northern Africa. Aristippus was a man of the world. He was first a Sophist and later a disciple of Socrates. After Socrates' death he returned to Cyrene. Here he founded his school, which included three generations of his own family. The prominent members of it were Arete, his daughter ; Aristippus, his grandson ; Theodorus, Hegesias, Anniceris, and Euhemerus, the author of so-called Euhemerism, which taught that the gods were originally only great men. In opposition to the brutal bareness of the Cynic school, the Cyrenaics saw the true end of life in the pleasures of sense. Following Protagoras, Aristippus said that the sensations are always true and can be defined in terms of motion. The school developed an elaborate psychology of sensation which summarizes its doctrine. It is as follows: (1) The intensity and not the duration of a sensation determines its value; (2) Bodily pleasures are of greater value than mental because they are more intense; (3) I can know only my own sensations, and therefore they are of greater value than another's; (4) Man has a reasonable insight which determines him in the choice of his sensations.

The practical problem of life for this, as it was for

the Cynic school, was how to become individually independent of the world. But the Cyrenaic taught independence by enjoyment, in opposition to the Cynic's independence by renunciation. The Cyrenaic Wise Man knows all the pleasures of life thoroughly, from animal satisfactions to spiritual ecstasies. He uses them all, but never forgets himself. He is lord of his appetites, never wishes the impossible, and has perfect and serene peace.

It is an interesting fact that this pleasure-loving school drew pessimism as the consequence of its theory. If life fails to give enjoyment, it is a failure. That life alone is reprehensible that has more pain than pleasure. It is on this ground that man should submit to law and custom rather than give up his pleasures. Yet some members of the school maintained that man is bound to be unhappy. While he should have pleasure, he is so constituted that he cannot gain it. The body of man is an inevitable sufferer. The highest that we can hope is painlessness.

The Cynic and Cyrenaic schools occupy an important position in the history of philosophy. The Cynic doctrine was the basis of the teaching of the Stoic school, and the Cyrenaic was the legitimate predecessor of the Epicurean school. These great schools were founded in Athens seventy-five years later, and will be discussed under the Hellenic-Roman Period.

CHAPTER VI

THE SYSTEMATIC PERIOD (399 B. C.-322 B. C.)

The Waning of the Greek National Spirit. The Systematic Period extends from the death of Socrates to the death of Aristotle. It is only seventy-seven years long — about the same length as the Anthropological and half as long as the Cosmological Period. It begins with those sorry days after the Peloponnesian War and ends with the supremacy of Macedonian power. The period was filled with ferocious wars among the Grecian cities. First came the supremacy of Sparta, then of Thebes (371–362 B. C.), then the invasion by Philip of Macedon and the battle of Chæronea, 338 B. C. In 334 B. C. Alexander the Great began the conquest of the Orient, which he accomplished in two years. He thought by this that he could reunite the Greeks in a common cause. He failed for two reasons. In the first place, as a Macedonian the Greeks would not take him as a national representative. In the second place, the Greek spirit was waning. The people had lost their glorious ideals. Decay had set in. The worm was at the root of Greek life. Greek art, literature, and statesmanship had passed.

The Place of the Three Systematic Philosophers in Greek History. Nevertheless, when Greek national life was approaching dissolution, science ripened its richest fruits and created its most comprehensive systems of philosophy. These are connected with the names of Democritus, Plato, and Aristotle. These

great systems evidently cannot be accounted for by the social conditions in which they appear. Neither the need nor the demand of the disrupted Greece of these years would be a sufficient cause to explain the appearance of a Plato or an Aristotle. The interests of the Greek people became narrower as the interests of the Greek philosophers became more broadly human. The intellectual tendency of this short period was utilitarian and practical. The problems that now interested the Athenians were the details of mechanics, physiology, rhetoric, and politics. The field of science was now for the first time systematized to logic, ethics, and physics — a classification which, we shall find, will exist for many centuries. Sparta and Macedonia, not Athens and Abdera, represent the spirit of the period.

If then Democritus, Plato, and Aristotle do not reflect the time in which they live, what relation do they bear to Greek civilization? They are not isolated and out of all relation to the life of the Greek people. On the contrary, they are the most comprehensive and the most profound expression of Greek life. One turns to them as the most perfect representation of Greek culture. They are the intimate expression of Greek thought, even if not of contemporaneous Greek thought. They are the final statements of the two preceding periods, projected into a time that had other interests. Democritus brought the Cosmological movement to a close, was its final expression, and gave it systematic form. Plato did the same for the Anthropological Period. In Aristotle the systematic cosmology of Democritus and the systematic ethics of Plato find a new meaning, in a closer union, under a more coördinating principle. Aristotle was the last possible word of Greek

philosophy, for he systematized every branch known to the Greeks. He not only evolved a speculative theory of the whole, but he organized the special sciences. It must be further said that no one of these three great Greeks could have produced the results each did produce, if each had not been the leader of a school of many workers. Within each school there must have been vigorous coöperation along lines according to the inclination of the individual members. Thus each school collected a vast amount of material which was worked over according to the method and purpose of the leader.

The Fundamental Principle of the Systematic Period. At the beginning of this book attention was called to the difference between Greek, Mediæval, and Modern thought. Greek thought was characterized as objective. It is important to reiterate this objective significance of Greek thought at this point, when we are about to discuss the teachings of Democritus, Plato, and Aristotle. Plato's theory is often called an idealism and Democritus' theory materialism, but they are not the idealism and materialism of modern times. No terms have fluctuated in their meanings more than such philosophical terms as these, as can be judged from the fact that in the Middle Ages Plato's doctrine was called realism. The Greeks were not idealists in the sense that Berkeley and Hegel were idealists. In general, it should be remembered that when we speak of Greek art, Greek politics, Greek philosophy as idealistic, they are not idealistic in the modern sense.*

The open-minded Greek sought to picture, to ascer-

* Read Zeller, *Pre-Socratic Phil.*, vol. i, pp. 138-149, concerning the objective character of Greek morality, art, and philosophy.

tain, to present. He was not dominated by the wish to show how things should be. To know and to understand, to explain by understanding the abiding reason in things, to find out the fundamental principle in things rather than to adjust it to the personal desires — this was the objective attitude of mind of the Greeks. The Greek saw before he reasoned; he visualized his thought in form before he subjected the form to rational analysis. The cosmos was a harmony and an art before which he stood in contemplation rather than in criticism. Human elements were found in it everywhere, but only as parts of that cosmos. "The unity of the spiritual and the natural, which Greek thought demands and presupposes, is the direct unbroken unity of the classic theory of the world."¹

By whatever names the great theories of the Systematic Period are called, we must remember that they did not depart from this objective Greek point of view. At certain times the moorings of Greek thought seem about to be shifted, as when Plato passes beyond the ancient Greek attitude and anticipates Christian morality by flight from the world of sense, and when Aristotle elaborates his doctrine of a transcendent god. But the tie never breaks, and the Systematic philosophers remain Greek and not modern. They have the Greek objective attitude of mind. The inner consciousness does not stand with its attestations over against all other things. The greatest of these philosophers never thought of himself but as "bone of the bone and flesh of the flesh" of the world surrounding him. In art the classic Greek "could obey but not surpass nature"; in religion he worshiped beings that were only superior

¹ Zeller, *Pre-Socratic Phil.*, vol. i, p. 162.

human beings ; in politics he was a member of a social whole. To Æschylus, Pericles, Socrates, Protagoras, Aristophanes, Democritus, Plato, and Aristotle alike, human nature is a part of the world and not *vice versa*. The Greek mind interpreted nature rather than re-created it.

What, then, is the nature of the development of Greek thought, and in what respect does the Greek Systematic philosophy differ from the philosophy of the Greek Cosmologists? Greek philosophy in the Cosmological Period starts with a conception of an objective harmony of nature and spirit which is called hylozoism. Step by step in the Anthropological and Systematic Periods that harmony becomes broken into a dualism of mind and matter. The philosophy of this Systematic Period is a dualism of the parts of one objective world, not a subjective-objective antithesis. The realm of spirit lies side by side with that of nature, and the separation and alienation never reached the complete form that it did in the Middle Ages. The great Greek Systematizers in part represent this dualistic tendency, in part are a scientific effort to overcome it. "In spite of this tendency [to a dualism] the original presupposition [a harmony between nature and spirit] asserts itself in decisive traits ; and we shall find that the true cause of its incapacity to reconcile these contradictions satisfactorily lies in its refusal to abandon that presupposition. When that [unity] is canceled, there remains to it no possible way of filling up a chasm which, according to its own standpoint, cannot exist." ¹

A Summary of Greek Philosophy. At this point a summary of Greek objective philosophy will be help-

¹ Zeller, *Pre-Socratic Phil.*, vol. i, p. 162.

ful. The philosophical problem that had been working itself out since Thales had been this: How may we think the Being that abides amid the changes of phenomena? The Cosmologists scrutinized physical nature and, without differentiating nature and spirit, conceived abiding Being to be living matter. The Anthropologists (except Socrates) doubted if there is any abiding Being. Among the Systematic Philosophers a dualism for the first time appears. Nature and spirit are differentiated, but both remain entirely objective. Democritus regarded the material universe as abiding Being, but in so large a way as to be able to construct upon it a psychology and an ethics. Plato found abiding Being in the realm of the spirit, in a group of moral and æsthetic entities. Aristotle attempts to overcome the opposition between materialism and Platonism. To him abiding Being is neither physical nature nor the spirit apart from physical nature. Abiding Being to Aristotle is the spirit in nature.

Greek Philosophy (objective).

1. The Cosmologists — Hylozoism.

Abiding Being is living nature — some form of living matter.

2. The Anthropologists — Relativism (except Socrates).

Being is not abiding, but consists of transitory mental states. This is a form of what was called by the schoolmen Nominalism, and summed up by the phrase *Universalia post rem*.

3. The Systematic Philosophers.

Democritus — Materialism.

Being consists in material atoms, but regarded in so large a way as to furnish a basis for a psychology and an ethics.

Plato — Objective Idealism.

Being consists of permanent moral and æsthetic concepts or types. In mediæval philosophy Platonism was called realism and was summed up by the phrase *Universalia ante rem*.

Aristotle — Conceptualism.

The abiding Being does not consist of material atoms nor in spiritual types apart from matter, but is an unfolding essence *in* matter. This was usually called conceptualism by the Schoolmen, and was summed up by the phrase *Universalia in re*. Aristotle's conception was as difficult as it was important. He was not always clearly a conceptualist, but sometimes appeared in the rôle of an "objective realist."

Democritus and Plato — Their Similarities and Differences. The materialism of Democritus and the idealism of Plato were as opposed as was possible within the realm of Greek thought. We must not exaggerate their similarities, but they had at least four common characteristics.

Their Similarities.

1. Both develop an outspoken rationalism,¹ which starts as a reaction from the perception theory of Protagoras. They agree with Protagoras that perception cannot yield truth, and so they turn away from perception to the reason to find true knowledge.

2. Both develop a world of twofold reality. Percep-

¹ Rationalism and sensationalism refer to the sources from which knowledge is obtained. Rationalism is to be contrasted with sensationalism. Rationalism is the belief that the reason is an independent source of knowledge and has a higher authority than sense-perception. Sensationalism is the belief that all our knowledge originates in sensations. Empiricism is often used for sensationalism.

tions are not regarded by them as illusions, although perceptions are transitory. Both make a new estimate of perceptions, and give to the world of perceptions a relative value. There are therefore two kinds of reality: the relative reality of the world of perceptions and the absolute reality of the world of reason. The result in both is a broad theory of knowledge.

3. In both, reality consists in a plural number of objective norms. Both reach their conception of these norms in the same way. The changing qualities of things are stripped away and the true reality is discovered beneath. Both designate this true form by the same word, *idea* (*ιδέα*). To both, the forms are objective entities.

4. Both are attempts to overcome scientifically the dualism which had emerged from the former hylozoism of Greek thought.

Their Differences — The Development of the Meaning of Idea. 1. But the forms or ideas are so vitally different in the doctrines of these two philosophers that they have nothing in common save the name. On the one hand, Democritus took the word "idea" just as he found it in popular speech. It is the shape of a visible thing, the geometrical form of physical objects. It gets no new content in his hands, but is merely the physical atom. With Plato, however, the word gets a new meaning. He fills the form or idea with an ethical content. The idea as a quantity becomes now a quality. The idea becomes an Idea. The forms of Plato are logical species and teleological causes, while the forms of Democritus are atom-complexes.¹ In both philoso-

¹ Teleology is the doctrine that things exist for some purpose. A teleological cause, which is the same as "final cause" or "end," is the purpose involved in an action. It is contrasted with mechanical or effi-

phers they are the norms of reality. But while Democritus still keeps his forms as the realities of physical nature, Plato conceives his forms to be true realities of objective human nature.

2. This vital difference between the two philosophers may get some explanation from the difference in the philosophical inheritance of each. To be sure, they were contemporaries, both being born in the Anthropological Period and both doing their most mature work in the Systematic Period. Both, too, were acquainted with the philosophy of the preceding time. But the ethical teaching of Socrates dominated Plato, and through it he became the legitimate perfecter of the Greek enlightenment and the anthropological movement. But what was the influence of Socrates upon Democritus? It seems to have been nothing. Why is Plato absolutely silent about Democritus when he mentions other Greek philosophers? No one has yet been able to say. Democritus stands at Abdera isolated from the ethical movement at Athens. The only influence upon him from that movement came from Protagoras, who was a member of the school at Abdera. Democritus is the finisher of the Cosmological movement.

The Life of Democritus (460–370 B. C.). Democritus was twenty years younger than Protagoras, about ten years younger than Socrates, and a generation older than Plato. He was outlived by Plato; and Aristotle was a young man when Democritus died. He was therefore contemporary with the intellectual move-

cient cause. A trolley car is moving and a man runs to catch it. Electricity is the mechanical cause of the movement of the car. The purpose of the man is the teleological cause of his running; the strength in his legs is the mechanical or efficient cause of his running.

ment going on in Greece, with Athens as a centre. While he does not appear to have come under the influence of Socrates, he was well acquainted with the destructive epistemology of the Sophists. Abdera, where he lived, is in Thrace, and seems to have been outside the Anthropological movement at Athens. The school of Leucippus was at Abdera; and Democritus was instructed in the Sophistic doctrine directly from Protagoras, who was a member of the Atomistic school before going to Athens. The three Systematic philosophers were wide travelers, Democritus not less than Plato and Aristotle. He traveled extensively through Greece, Egypt, and the Orient. He then returned to Abdera and began his scientific activity. He remained five years in Egypt, and came to know the greater part of western Asia. He returned to Abdera about 420 B.C., and therefore did not begin his teaching before he was forty years old. The length of time that Democritus, Plato, and Aristotle took for their apprenticeship, and the advanced age before they began their mastership, is remarkable. Democritus was the greatest investigator of nature in antiquity, and Aristotle used much of Democritus' work for his own scientific writings. The ancients admired the writings of Democritus, and the loss of them in the fourth century after Christ is one of the most lamentable that has happened to the literary documents of antiquity. His works were extraordinary in number, and upon every known subject.

Democritus was the real exponent of the Atomistic school. The founder, Leucippus, belonged to the Cosmological Period; Protagoras, the Sophist, belonged to the Anthropological Period, and had great influence in the

development of the school at Abdera ; but Democritus, in systematizing the doctrines of Leucippus and in accepting the perception theory of Protagoras, became its most notable representative. He was the great systematizer of the Cosmologists, and yet he differed from all the Cosmologists in embodying in his theory the results of the Sophistic movement.

The Comprehensiveness of the Aim of Democritus. The reconstruction of the philosophy of Democritus has always been difficult for the historian because, from the originally great mass of his writings, only fragments remain. The fragments show, however, many interesting things : that he covered the entire range of experience in his investigations ; that he was quite as much interested in psychical as in physical problems ; that his contribution to epistemology was even greater than to physics ; and that he was interested in the atomic theory because he believed that it was a working hypothesis for the explanation of experience of every kind. This last characteristic shows the systematic nature of his work and his right to stand with Plato and Aristotle. Democritus fully realized that the task of science was to explain experiences through a conception of reality. So he constructed his conception of the atom in order that he might explain phenomena intelligibly. He saw that no conception strange to experience or against experience, like the Eleatic Being, would answer scientific demands. A rational conception of absolute reality will have value only as experience testifies to it and, on the other hand, as it explains experience. Democritus valued his theory of the atoms because it seemed to explain all phenomena. This construction of a single fundamental rational principle for all kinds of phenomena

shows how much more of a systematic scientist he was than the Cosmologists.

The Enriched Physics of Democritus—Hylozoism becomes Materialism. There is so great enrichment in elaboration and generalization in the physical doctrine of Democritus over that of Leucippus that it amounts to a change in principle. In all probability Leucippus, like other Cosmologists, was a hylozoist, and did not differentiate matter and life. He is to be grouped with the Reconcilers, or even with the Eleatics, rather than with Democritus. Democritus was a materialist. The period of forty years between himself and Leucippus had been the rich period of the introduction of psychological investigation and of the discrimination of psychical from physical processes. Materialism or spiritualism is not possible in the historical development of the human mind until it passes through just such a period of differentiation as the Sophistic Enlightenment. Before such a period there is animism and hylozoism ; after such a period there is materialism and spiritualism of various sorts. Matter must be discriminated from spirit before one of the terms can be reduced to the other. So the hylozoistic pluralism of Leucippus became in the hands of Democritus a realistic materialism, pluralistic as well.

The reduction of all phenomena by Democritus to a *mechanics of atoms* was theoretically an enrichment of physics, for it anticipated the underlying principle of modern physics. The apparent qualities of things and the qualitative changes of things are conceived by Democritus to be in truth only a quantitative relation of atoms. He set before himself the task of explaining in detail how this or that quality consists of atoms in mechanical motion. The mental life of man must be

explained in the same way. So too, wherever he could, he emphasized more sharply than his predecessors the mechanical necessity of the movement of atoms. Impact caused by contact of the atoms was the cause of every occurrence and change. No event is to be explained as the manifestation of some spirit, or referred to some spiritual agency. Mechanical cause is behind every event; mechanical cause is the unifying principle of the doctrine of Democritus; mechanical cause is the reason for the chasm between the philosophy of Plato, of Aristotle, and that of Democritus. It is the reason, too, why the theory of Democritus was obscured until modern times. All teleological conceptions and all hylozoistic and animistic ideas are expelled from the theory of Democritus, on the assumption that spatial form and motion are simpler and more comprehensible terms of explanation. Thus for the first time we have a conscious *outspoken materialism*, and for the first time the world is conceived to be a *universal reign of mechanical law*.

The physical theory of Democritus also yielded a rich scientific *explanation of the historical evolution of the universe*. The universe, according to Democritus, — following the teaching of Leucippus, — consists of two parts: the Plenum or self-moving, qualitatively similar atoms; and the Void or empty space, in which the atoms move. The Plenum, or the atoms, is Being; the Void is not-Being. The atoms differ only in form and size;¹ they are infinite in number and therefore are of an infinite number of forms and sizes; they are imperceptibly small. The perceptible qualities do not belong

¹ Atoms differ primarily in form (*ἰδέα*); size is referred in part to form.

to them, but to their motions. Motion is an irreducible function of atoms, and each atom, lawless in itself, is in flight through space. An aggregation of atoms arises when the atoms meet in their cosmic flight. The shock causes a vortex which draws more atoms into itself. Like atoms are drawn together, and the heavy atoms press the fine fire-atoms to the periphery. Thus innumerable worlds are formed, for any place of the meeting of several atoms can be the beginning of a new world. Sometimes small worlds are drawn into the vortices of large worlds, and sometimes large worlds disintegrate in fatal collisions. The worlds are therefore endless and in endless succession. The whole swings in space like a ball; the rim of the whole consists of compact atoms; the centre is filled with air. To much further length than we can go here Democritus developed a theoretical description of cosmic evolution upon the principle of mechanical necessity — and the description is almost modern.

The Materialistic Psychology of Democritus. It is easy to understand an explanation of the physical universe as atoms in motion; for our modern scientific theories of nature are set in these terms, even if we have transformed the Democritan static atom into a dynamic entity. It is rather more interesting to follow such a materialist as Democritus in his extension of the materialistic principle over upon the realm of the mental life.

In the first place, Democritus conceives man to be part and parcel of the world of atoms. Man is composed of all kinds of atoms. His body consists of earth, water, and air atoms. His mind is made up of fire atoms, which differ from the others in being the finest,

smoothest, and most mobile. On this account the fire atoms are the most perfect of all. Psychical activity is the motion of fire atoms. They are scattered throughout the universe, and wherever they are, there is life. They are in plants and animals as well as in man. There is a larger collection of them in man, and this shows his superiority over other living things. In man there is a fire atom between every two other atoms, and the whole is held together by breathing. The different forms of mental activity are simply different forms of atomic motion.

In the next place, our atomic make-up involves the presence of other atomic complexes, if we are to have any psychical activity. External things must stimulate us. But these external things are atoms in action. They can, however, influence us only by coming into contact with our bodies. Only by impact on our bodies can they set in motion the fire atoms which are scattered through our bodies. Every kind of knowledge or mental life involves the participation of the fire atoms in us. Thus mental activity involves two factors; the fire atoms within us and an external group of atoms without us.

How did Democritus explain the varied mental life as the resultant of these two factors? He employed the theory of effluxes, belief in which he shared with his time. This is a purely physiological assumption, originated by such Cosmologists as Empedocles, that somehow external bodies send off emanations from themselves which strike upon our bodies. Most objects in the world influence us at a distance and only through the emission of these effluxes. Democritus conceived these emanations to be little copies or "eidola" of the thing that sends them off. To illustrate Democritus' meaning:

a tree is seen by me because little trees, thrown off by it, hit my eye. This theory retained its position in philosophical circles until after Locke. It persists in the popular mind to-day. It is a general belief that a thought is a copy, photograph, or image of the thing. The words "image" and "imagination" betray their origin. It was believed by Democritus that such copies set in motion the sense organs and through them the fire atoms. The effluxes can, however, affect only those organs of the body that have similar formation and similar atomic motions.

But the effluxes vary very much in the degree of fineness of their atomic structure. There are all sorts, from very fine to very coarse. Since the efflux must correspond to a particular sense if that sense is to be affected by it, the effluxes that can affect the senses vary respectively as to their fineness. Democritus was particularly interested in the sensations of sight and hearing as examples of this. None of the effluxes affecting the senses are as fine as those that stimulate the reason. Unless they were the finest of all the effluxes, they could not affect the fine motions of the fire atoms of the reason. These finest "eidola" or effluxes are the true copies of things, and the reason therefore alone knows things truly. Thought, on the one hand, is precisely the atomic motion of the *direct* impact of the finest effluxes upon the fine fire-atoms of the soul. Sensation, on the other hand, is atomic motion from the *indirect* impact of the coarser grades of effluxes upon the fire atoms. The reason knows reality directly. Sensations are aroused in a roundabout way by the coarse effluxes setting in motion the corresponding sense organ, which in turn sets in motion the fire atoms. Thus does Democritus make the

distinction between thought and sensation in quantitative terms. Thus does he reduce his psychology to a consistency with his metaphysical principle of materialism.

Democritus' Theory of Knowledge — The World of Twofold Reality. Democritus would have been only one of the great Cosmologists, and he would not have his place by the side of Plato and Aristotle, if his materialism had illuminated no other subject than physics. Indeed, it is doubtful if his physics would have been so grandly comprehensive and unqualified had it not been strengthened by his discriminating theory of twofold knowledge. He might have extended and systematized his materialism so that it explained to the satisfaction of his time both physical and psychical phenomena, and still have been a hylozoist, like Leucippus, the founder of the Atomistic school. The problem of knowledge — the problem of estimating our mental states — was as incomprehensible to Leucippus as to the Eleatics. Democritus, however, was a rationalist and realist like Plato and Aristotle. He recognized, as did they, that there is a difference in epistemological values. His universalized materialism did not prevent him from evaluating our experiences from the same general point of view as the leader of the Academy and the Stagirite. He felt that a twofold reality is as consistent with materialistic principles as with idealism. So he reduced all qualities to quantities, and then as quantities re-valued and classified them. His chief contribution was to the subject of epistemology and not to physics, and that is why he is treated among the Greek Systematizers and not among the Cosmologists. Probably his chief interest lay where he did his chief work.

The perception theory of Protagoras was the starting-point of both Democritus and Plato. Both adopted it in order to transcend it and make it of real significance. Democritus, upon the basis of his materialistic psychology, admitted that sense-perception is only a transitory process, and its knowledge must be as transitory. But he did not agree with Protagoras that all knowledge is perceptual. Sense-perception does yield only relative knowledge; but there is another kind of knowledge that is not relative but absolute. This is knowledge of the reason. Human beings have reason as well as sense-perception. Thus is Democritus a rationalist, although a materialist.

The contribution of Democritus to the theory of knowledge consists in just this turn which he gave to Protagoras' doctrine of perception. The relativity of perception becomes in the Democritan theory a different thing from what it was in the doctrine of the great Sophist. To Protagoras perceptual knowledge is relative, and therefore of no value in determining what is real. To Democritus perceptual knowledge is relative, but it has a value, — a relative value. It gets this relative value from the fact that the reason can determine absolute reality. Perception is the contributor to the reason, and also in turn is illuminated by the reason. In the same breath we may say that Protagoras was a contributor to the theory of Democritus, and in turn that the Protagorean relativism was illuminated by the Democritan rationalism. The result was a twofold knowledge — in the language of Democritus, "genuine knowledge" and "obscure insight."

The objects corresponding to these two kinds of knowledge must be of two kinds. On the one hand,

the objects of the reason, or "genuine knowledge," are the genuine, primary, or real properties of the atoms — for the atoms are reality to Democritus. These are form, size, inertia, density, and hardness.¹ A study of these properties of things is, therefore, a study of real objects. On the other hand, the objects of perception or "obscure insight" are the properties of atoms as perceived obscurely by the senses. These are color, sound, taste, smell. They are the qualities or relative properties of things. A study of these is a study of only what is relatively real. When materialism was revived by the Renaissance, the former group of objects were called "primary qualities" and the latter "secondary qualities." These terms have become classic, and have rendered permanent Democritus' evaluation of the objects of the two kinds of knowledge. Out of the fragments of the teaching of the Cosmologists and the one-sided epistemology of the Sophists, Democritus constructed contemporaneously with Plato, perhaps antecedently to him, a theory of twofold knowledge.

The Ethical Theory of Democritus. The ethics of Democritus is another example of his general principle of a mechanism of atoms. His attempt to reduce all qualitative to quantitative relations, which gives his theory a unique place in Greek thought, reaches its highest distinction in his ethics. The influence of his ethical doctrine upon the Epicureans, and possibly upon the Cyrenaics, shows its importance in history. Furthermore, its high quality proves that a materialism can offer inspiring ethical doctrines. Some have placed the ethics of Democritus upon a level with the ethics of Socrates because, as it is pointed out, he placed it upon

¹ These all reduce to form, — see above.

an intellectual basis. The basal ethical principle of Democritus may be stated thus: As true knowledge is the ideal object of the intellect, so true happiness is the ideal object of our conduct. The ethics of Democritus is eudæmonistic, like that of Socrates.

Pleasures have fundamental differences. They are in every case the results of atomic motions; but the atomic motions of the intellect differ from those of the senses, and those of the senses differ from one another. The fire atoms of the intellect are small, and have a gentle, peaceful motion; the atomic motions of the senses are coarse and violent, caused by the coarse effluxes of the objects that excite them. Sense-pleasures are relative, like the perceptions. As perception is obscure insight and gains the appearance and not the true reality, so the pleasures of sense are transitory, uncertain, violent, and deceitful. Intellectual pleasures are, like the intellect, real, true, permanent, gentle, and peaceful. True happiness, the goal of human activity, attends upon that right insight — upon the gentle atomic motions of the intellectual life. On the other hand, the coarse atomic motions of the senses disturb the intellectual calm, and are often violent explosions. Democritus believed that knowledge of the atoms, as the true explanation of the world, will give to the soul a measure and a harmony, will guard it from excitement and make it possessor of a peace which — to use his happy simile — is like the ocean calm. Two ideals seem to stand before Democritus, which he did not try to reconcile. Sometimes before his mind's eye the ideal happiness is purely intellectual pleasure and points toward asceticism. Sometimes he speaks of happiness as the life of perfect self-control and temperance. He never positively denies

all value to sense-pleasure, but he gives to sense-pleasure the relative value that he gives to the senses themselves. In every case the ground of happiness is intellectual refinement, and the ground of unhappiness the lack of it. The majority of men are sensualists and are to be contrasted with the Wise Man, who finds his happiness either in his individual life or in his friendship with other Wise Men.

CHAPTER VII

PLATO (427-347 B. C.)

Abdera and Athens. The materialism of Democritus was the natural consummation of the thought of the Cosmological Period. The influence of the Sophistic psychology only enriched it, widened it, and brought its materialism into a systematic formulation. The Democritan system from the isolated centre of Abdera points only to the past. Upon the death of Democritus the school quickly disappeared. Its materialistic doctrine reappeared from time to time in one form and another, — in the Skeptics, the Epicureans, and the Stoics. It was reintroduced as a system into Europe during the Renaissance. So far as Greece was concerned, the school of Abdera was an early ripening and an early dying branch.

The school of Athenian immaterialism, the principal tendency of Greek thought, arose from the centre of Attic civilization and pointed to the future. It drew its materials from practically the same sources as the philosophy of Abdera, but the materials were polarized about the ethical teaching of Socrates. The life of Plato coincides with the unhappy history of Athens after the death of Pericles (429 B. C.). The Peloponnesian War began in 431 B. C., two years before the death of Pericles and four years before the birth of Plato; and it did not end until 403 B. C. The event most disastrous to the Athenians during this war was the Sicilian expedition in 413 B. C. Athens was

captured by the Spartans in 403 B. C., and the great walls of the city were destroyed. The remainder of Plato's life was contemporaneous with the devastating wars among the Greek cities, for there was no city strong enough to hold the balance of power after it left the hands of the Athenians. In 359 B. C. Macedon began to loom up as a power in the north. The life of Plato, the formulator of Athenian immaterialism, may be easily remembered as covering that period between the rise of Sparta and the rise of Macedon.

The Difficulties in Understanding the Teaching of Plato. The theory of Plato is one of the most involved and one of the most difficult to understand in the whole history of philosophy. This difficulty of interpreting Plato as a philosopher depends upon many factors: upon the artistic literary form of the dialogue in which his philosophy is presented; upon the conflicting tendencies of thought in Plato himself; upon the fact that the composition of his dialogues extended over a period of more than half a century; upon the constant reshaping of the content as well as the form of his thought; and upon the uncertainty of the chronological order of his writings. This chronological order of Plato's dialogues is an important factor in determining his teaching. Since the beginning of the nineteenth century a vast amount of literature has been published on the subject, and many theories of the dialogue-chronology have been proposed. There are three principal groups of theories: (1) those based upon purely *a priori* hypotheses, as, for example, that of Hermann, that each dialogue is a stage in the development of Plato's thought; or that of Schleiermacher, that Plato had a systematic plan from the beginning; (2) those based

upon an empirical study of the historical allusions in the dialogues themselves (Zeller, Windelband, *et als.*); (3) those recent theories based upon the "stylometric test," *i. e.* by an examination of the peculiarities of the style of Plato. Lutoslawski is a prominent representative of this method.

The result to the student is bewildering, on account of the differing conclusions. But since some choice must be made, we shall follow the order laid down by Windelband,¹ because it is fairly orthodox and conservative. For convenience to the memory, the writings will be grouped in the periods of Plato's life. Our interpretation will therefore follow Windelband in respect to the character of Plato's theory itself.

The Life and Writings of Plato. Two important events divide Plato's long life of eighty years into three periods. These events were the death of his master, Socrates, in 399 B. C., and Plato's return from Sicily in 387 B. C., after having there come under the influence of the Pythagoreans. His first period may be called his student life, and was twenty-eight years long; the second period was that of the traveler, and was twelve years long; the third period was that of teacher of the Academy, and was forty years long. The first half of his life therefore covers the first two periods, and the second half covers his period as teacher. Probably he was engaged in the composition of the dialogues during all these periods, and Cicero reports him to have died "pen in hand" (*scribens est mortuus*).

1. Plato's Student Life (427-399 B. C.). This period closes with the death of Socrates. His acquaintance with Socrates began when he was twenty years old, and therefore lasted eight years.

¹ Windelband, *Hist. of Ancient Phil.*, pp. 183-189.

The dialogues written during this period are presentations of the doctrine of Socrates and do not contain the constructive theory of Plato. They are concerned either with Socratic subjects or with Socrates personally, and were written in part during Socrates' life, in part directly after his death.

(a) Dialogues written under the influence of Socrates :

Lysis, concerning friendship ;

Laches, concerning courage ;

Charmides, concerning moderation.

b) Dialogues written in defense of Socrates :

Crito, concerning Socrates' fidelity to law ;

Apology, a general defense of Socrates ;

Euthryphro, concerning Socrates' true piety.

2. Plato as Traveler (399–387 B. C.). During this period Plato made one short and two long journeys, and after each he returned to Athens. Upon the death of Socrates he went to Megara, where a former pupil of Socrates had a school. Upon this journey he was accompanied by other pupils of Socrates, who, as tradition has it, feared violence to themselves after the death of their master. Plato remained in Megara but a short time, and soon returned to Athens. Immediately upon his return to Athens he went to Cyrene and Egypt, and was away from Athens about four years (until 395 B. C.). The Egyptian journey had little influence upon his thought, but must have stimulated his imagination. He then remained at Athens four years (395–391 B. C.), and during this time he taught a small circle and wrote his polemics against the Sophists.

In 391 B. C. Plato made his first Italian journey — to Sicily and southern Italy. This marks the second criti-

cal point in his mental development. For at this time (1) he came under the influence of the Italian Pythagoreans, and (2) he attempted and failed in connection with Dion * and Dionysius to erect his ideal state in Syracuse. He was sold as a slave by Dionysius, redeemed by a friend, and returned to Athens in 387 B. C., having been away about four years.

It is to be noted that Democritus and Plato were wide travelers, considering the difficulties of locomotion of the time. Both Democritus and Plato went to Egypt, and Democritus spent several years in Asia Minor (see p. 107).

The dialogues written during this period may be divided into (a) the group of polemics against the Sophists, and (b) the *Meno*.

(a) The polemics against the Sophists (written between his return from Egypt in 395 B. C. and his first Italian journey in 391 B. C.).

They are an attempt to present a solid front against the Sophists, and to show the weakness of the Sophistic doctrines. These polemical dialogues are :

Protagoras, a criticism of the Sophistic assumption that virtue is teachable, because that assumption is incompatible with the Sophistic fundamental principle ;

Gorgias, showing how superficial the Sophistic rhetoric is when compared with true culture, which is the foundation of real statecraft ;

Euthydemus, an exposition of the fallacies in the Sophistic eristic ;

Cratylus, a criticism of the philological attempts of the Sophists ;

* Read Wordsworth, *Dion*.

Theætetus, a criticism of the Sophistic theories of knowledge ;

The First Book of the *Republic* (the "Dialogue concerning Justice"), a criticism of the Sophistic naturalistic theory of the state.

(b) *Meno*, which contains the first positive statement by Plato of his own constructive theory. It is the first intimation of development beyond the simple Socratic theory of knowledge. Plato states this, however, rather timidly, by suggestions and after the manner of a mathematician.

3. **Plato as Teacher of the Academy** (387-347 B. C.). These forty years were spent by Plato in Athens as master and teacher of his school, the Academy, with the exception of two journeys to Italy. He undertook these journeys in the hope of realizing in a practical way his political ideals. He made his second Italian journey upon the invitation of Dion, in the hope of influencing the younger Dionysius, and the third Italian journey in order to reconcile Dion and Dionysius. This last journey brought him again into great personal danger.

What was the Academy? It was a public grove or garden in the suburbs of Athens (see map, p. 219) that had been left to the city for gymnastics by a public-spirited man named Academus. It had been surrounded by a wall and had been adorned by olive trees, statues, and temples. Near this inclosure Plato possessed by inheritance a small estate. It was here that he opened his school, and few places could be more favorable for the study of philosophy. Plato bequeathed this estate to the school, which held the property in a corporate capacity for several centuries. The leader of the school was called scholarch, and he appointed his own successor.

The school was a kind of religious brotherhood based upon the worship of the Muses.

Note that Democritus, Plato, and Aristotle finished their education at an age much beyond what is supposed to be the limit in modern time. They were, in fact, mature men before they began their life work. Plato was 32 before he began to teach in Athens and 40 before he set himself about his real life task in the founding of the Academy. Democritus was 40 before he returned to Abdera from his travels in Asia Minor. Aristotle was 41 when he undertook to act as tutor of Alexander, and 49 when he began his administration of the Lyceum.

The dialogues of the third period of Plato's life contain his constructive theory, and are his masterpieces of art. The topics with which they deal show the advance of his thought over the dialogues of his first period. The purely Socratic dialogues were ethical discussions; these are ethical, metaphysical, and physical.

Phædrus, Plato's delivery of his programme upon his entrance into active teaching in the Academy, in 386 B. C.

Symposium, an exposition of his entire doctrine in "love speeches." It is the most artistic of his writings, and represents the climax of his intellectual power (385 or 384 B. C.).

Republic (major portion). The composition of the *Republic* extended over a long period. It is a discussion: (1) concerning justice (written in the second period, see above); (2) concerning the ideal state which shall realize justice; (3) concerning the Idea of the Good and in criticism of the constitutions of states. It is Plato's masterpiece and his life work.

Parmenides and *Sophist*, written to express the objections to the theory of Ideas, and to discuss such objections. (Windelband holds these dialogues were not written by Plato, but by some member of his school. This is, however, not the consensus of opinion.)

Politicus, a discussion of the field of knowledge and of action for a statesman.

Phædo, Plato's final will and testament to the school, written shortly before his third Sicilian journey, in 361 B. C. It is his completed conception of the Idea of the Good and of the relation of other Ideas to it. It contains Anaxagorean and Pythagorean elements.

Philebus, concerning the ingredients of the Idea of the Good.

Timæus, Plato's conception of physical nature, expressed in mythical form.

Laws, the work of Plato's old age, his revision of the ideal State.

Concerning the Dialogues¹ of Plato. The early philosophers presented their philosophy in metrical form as poems "concerning nature"; Socrates perpetuated his teachings through conversations with men; Plato made his influence permanent by written dialogues; Aristotle's philosophy, in the works that have been preserved, stands in the form of treatises whose sole purpose is that of exposition. Plato's dialogues therefore have a twofold place in the history of litera-

¹ B. Jowett, *Dialogues of Plato*, trans. into English with analyses and introductions, 4 vols.

See p. 158 for selections from the dialogues made by Jowett for English readers.

ture. On the one hand, in the history of literature proper we have already mentioned them as standing after the Greek drama in the development of Greek dialectics; on the other hand, in the development of philosophical instruction they stand between the conversations of Socrates and the scientific expositions of Aristotle.

Plato was the first child of Fortune, and the complete preservation of his works was the most remarkable proof of it. Æschylus was the author of at least 70 writings, of which 7 are preserved; Euripides was the author of 95 writings, of which 18 are preserved; Sophocles had 123 writings, aside from his lyric works, of which 7 are preserved. Shakespeare wrote 36 plays, Plato wrote 35 dialogues that are genuine. All of Plato's writings have come down to us. Why were the writings of Plato preserved from the destroying hand of time? There are at least three causes of their preservation: (1) they had intrinsic beauty; (2) there was contemporary public interest in them; (3) the chief cause, Plato's school kept close guard over them.

By the dialogue Plato could employ the Socratic method, give dramatic effect, and idealize Socrates. The *Republic* is his crowning literary effort, and the most complete statement of his mature political views. Perhaps the *Philebus* is the best expression of his idea of goodness, and presents his most complete organization of the sciences. All Plato's dialogues have a transparent beauty and a purity of diction; and they may be taken as a revelation of himself. All are dialogues save the *Apology*, but the dialogue element grows less and less in his later works. Socrates is usually the spokesman in them, and to him is usually given

the deciding word. Only a few have a fixed plan of argument. One thread and then another is followed, and in many no decision whatever is reached; for the dialogues must always be taken as artistic products in which philosophical experiences are idealized. Plato often employs myths or parables to illuminate his arguments. The situations and the literary adornments show the human touch, and the conversation often moves to a dramatic close.

In the *Republic* Plato sought to formulate theoretically certain political conceptions of the ideal State that were then in the air. It is interesting to note that his conception influenced the political idealism of later time, as, for example, Cicero's *De Republica*, Augustine's *City of God*, More's *Utopia*, Campanella's *State of the Sun*, Bacon's *New Atlantis*, Macchiavelli's *Il Principe*.

The Factors in the Construction of Plato's Doctrine.

1. His Inherited Tendencies. (a) In the first place Plato was by instinct an aristocrat. His family was one of the most distinguished in Athens, and traced its descent from Solon and Codrus. In making an estimate of his philosophy one must take account of the caste of society in which he was born. His metaphysical theory of Ideas is aristocratic, and in it he turns from all that is of the earth earthy to what is above the life of "opinion." His four cardinal virtues are possible only to the few. His political attitude was peculiar. He was hostile to the democracy, and yet his political idealism diverged so far from the practical politics of Athenian aristocracy that he completely abstained from public life. With Plato, philosophy once more retires to the school. Here we have the strange

juxtaposition of Socrates, the teacher, who had been engaged in a practical reformation, whose father was an artisan and whose mother a midwife, and Plato, his adoring pupil and truest interpreter, — Plato, the idealist, “whose speculation is not like the Philistine, whose life is spent in the market place or the workshop, and whose world is measured by the narrow boundaries of his native town; it is the lord of the manor, who retires to his mansion, after having seen the world, and turns his gaze towards the distant horizon; disdaining the noise of the cross-roads, he mingles only in the best society, where is heard the most elegant, the noblest, and the loftiest language that has ever been spoken in the home of the Muses.”¹

(b) In the next place Plato had an instinctive love for the beautiful, and in this he was great, even in his time. Every Periclean Greek was artistic, but Plato was more than this. He is to be ranked among the great creators of the art of his day, — with Phidias and Sophocles. He represented in his person everything ideally Greek. He was a man of great beauty, a human Apollo, a man endowed with every physical and mental talent, and his moral character was almost ideal in its purposes. His real name was Aristocles, and he got his name Plato from his broad frame. The artistic development of the time appealed to him in his youth, and he was early interested in the writing of epic and dramatic poetry. This artistic instinct determined in no small measure not only the form of the presentation of his thought, but also the content of the thought itself. It determined his principle of conceiving the Ideas, the constitution of his State, his theory of pleasure, and his

¹ Goethe.

conception of the highest Good. The artistic form of the presentation of his writings was as important to him as the matter presented.

2. **His Philosophical Sources.** Plato had received a careful education that made him familiar with all the scientific theories of current interest to the Athenians. The elements of the earlier philosophies, that were fundamental to the mechanical atomism of Democritus, were recombined in a different way by Plato under the influence of Socrates' ethical principle. Even Plato's political and artistic ideals are subordinate to his entire absorption in the personality and teaching of Socrates. Heraclitus, Protagoras, Parmenides, and, later, Anaxagoras and the Pythagoreans, furnished him with his philosophical materials. We may point out three of the preceding philosophies that had an especially powerful influence upon him: those of (1) Socrates; (2) Parmenides; and (3) the Pythagoreans. His revered master, Socrates, furnished Plato throughout with the conceptual principle, by which he worked over all his material into his daring system. The influence of Parmenides upon him was also very great. He speaks of the Eleatic as "Parmenides, my father." Plato betook himself to the Eleatic school at Megara upon the death of Socrates, and this shows that he must already have been hospitable to the philosophy which taught the conception of an absolute and eternal essence of things known by the human reason. The influence of the Pythagoreans was felt by Plato on his first visit to Italy. This influence grew with him, and seems to dominate the dialogue of his old age, the *Laws*. The Eleatic Oneness was a single, immutable block. In the Pythagorean doctrine of numbers he

found the conceptual divisions of that Oneness, and he also found that such conceptions would give a content to Socrates' conception of the Good. Indeed, the numbers seemed to be the conceptual models for which Socrates was searching. Mathematical truths are independent of perception. They are innate ideas. They are eternal and immutable Forms. They were the weapons needed against the Protagorean doctrine of perception. While Plato agreed with Heracleitus that the visible world is a changing world, and with Protagoras that our sense-perceptions of that world can yield only relative truth, he developed his philosophy almost entirely on its conceptual side; and this is due to the influence first of Socrates, second of Parmenides, and third of the Pythagoreans. Plato's completed philosophy was the theory of Ideas, worked over in his mind a half-century or more, and is in itself a history of the development of pure concepts.

The Divisions of Plato's Philosophy. Plato himself had no clear conception of an exact division of science, and did not confine himself in a single dialogue to a single science. Aristotle, however, distinguished in the philosophy of his master dialectic, ethics, and physics, and these divisions of Plato's teaching have been traditionally adopted. The dialectic, as commonly used in his time, meant "the dialogue or conversation employed as a means of scientific investigation." It was transformed by Plato to mean not logical but metaphysical discussion. Plato was concerned with the laws of Being rather than the laws of logic, and, as Being to him consisted of Ideas, his dialectic interest was to reduce experience by division and induction to some unity. Plato's dialectic was not logical but methodological, —

logical operations taken as a whole, — by means of which the Ideas and their relations to one another were to be found. The physics of Plato is of little value. It was an afterthought to satisfy the demands of his school. The world of nature phenomena could never be for Plato the object of true knowledge. Unfortunately, the teleological physics of Plato was regarded by the Hellenistic time and the Middle Ages as Plato's most important achievement. Plato wrote entirely in the spirit of the Enlightenment, and his works show a great interest in man as a moral being, but little interest in physical nature.

Summary of Plato's Doctrine. The interpretation of Plato as set forth in what follows may be thus summarized: Plato began with the conceptual form of idealism, suggested by the logical method of Socrates, with the purpose of solving logical and ethical problems. He advanced to a teleological idealism, conditioned by the doctrines of Anaxagoras and the Pythagoreans, with the purpose of applying his doctrine to physical problems.

The Formation of Plato's Metaphysics. In his earliest period Plato made these very clear statements: (1) virtue is knowledge; (2) by knowledge is not meant sense-perceptions. In his final statement of his philosophy, as he bequeathed it to posterity, he only gave a new evaluation of these two early principles, although he expressed them in a highly complex form. "Virtue is knowledge" is the basis of agreement between Socrates and the Sophists; and "by knowledge is not meant sense-perceptions" is the basis of their opposition. During Plato's early period he was acting as a faithful transcriber of Socrates in the presentation of this first principle: virtue is knowledge, is teachable, is one. Dur-

ing Plato's second period he was called on to defend the second statement against the Sophists. Plato's formation of his own theory begins at this point, — at the point where his defense of his master was keenest. From this time, for a full half-century, Plato developed the Socratic principles in a theory that went far beyond Socrates, but that was never untrue to him.

The simplest way of stating Plato's formation of his own doctrine is this: he accepted the Protagorean doctrine of a perceptual world of relative knowledge; he placed it beside the Socratic theory of conceptual reality; and as a result he conceived the world to be twofold. Both Being and Becoming share in reality. There are, on the one side, the immutable concepts that compose true reality; there are, on the other side, the changing perceptions that come and go. The world of true reality is, but never becomes; the world of relative reality becomes, but never is. These two worlds are by nature separate; one is the object of the reason, the other is the object of the senses; one is incorporeal, the other is corporeal. The first world is the immutable One of the Eleatics presented by Plato as a plural number of Socratic concepts; the other world is the Heracleitan flux presented as perceivable things. There is true knowledge, but Protagoras is right in saying that it cannot be found in the perception of the material world. It is knowledge of an incorporeal world, and that is precisely the world of Socratic concepts which now in Plato's hands become Ideas. .

It would, however, be a mistake to suppose that Plato's conception of the world was an artificial eclecticism, obtained by putting two worlds side by side. To be sure, he never was able to bring them into an organic

unity, and the dualism between them is often very marked. But they do not lie like two drawers in a desk, each having no vital influence on the character of the other. In the juxtaposition of the two worlds each gets a new meaning, and the value of each becomes greater.

In the first place, *perception*¹ gets a new value. The logic of the Sophistic doctrine of perception was that perceptions are the only form of knowledge, and even perceptions have no share of truthfulness. Protagoras himself did not go so far as this absolute skepticism, but this is the logic of his position. Perceptions can have no value, because each is a standard to itself. Plato incorporates the perception theory into his own, and immediately gives it a new value. Perceptions do not, to be sure, yield true knowledge, but they have a relative value. They have a value for the practical world, although the highest they can give is Right Opinion. When we remember that the world of that day was weary of its own speculations leading to nihilism, it is remarkable that Plato did not turn away entirely from the doctrine of the Sophists. On the contrary, he took up the Sophistic doctrine into his own and gave to it a value which it had not possessed by itself.

In the second place, *conception* gets a new value. What was conception to Socrates? It was the common content of opinions and perceptions; it was the universal that was developed inductively out of many particulars. Socrates brought many particulars together in order to reveal their common qualities. The abode of conceptions was to Socrates the half-formed individual opinions and experiences in which conception lay, as in

¹ For the distinction between perception and conception, see p. 83.

an envelope ; and the conversation was needed to bring it forth. The concept to Socrates was the logical "nature" of perceptions. But now since Plato admitted the relative reality of all perceptions, he was obliged to look elsewhere to account for conceptions. If the conceptions are true reality, they cannot be the common quality in opinions, nor the logical "nature" of changing perceptions. The true conception cannot be contained in the perception. Accordingly the conception must exist in an incorporeal world and possess an independent reality. The concepts are hypostasized by Plato. They become Ideas. Thus the Socratic concept became the Platonic Idea, and *for the first time in European thought, reality is conceived as immaterial*. The conceptual world grows under Plato's hands to be "other than" the perceptual world, and this was his first step beyond Socrates. The conceptual world is the perfect reality that cannot be contained in any material thing nor in the sum of all material things. The immaterial Ideas are the object of thought, as nature phenomena are the objects of perception. Ideas are not the abstractions of perceptions, for the process of thought is not an analysis nor an abstraction, but an intuition of reality presented in single instances. Ideas are the reality of which perceptions are the copies or shadows. Perceptions do not contain the truth. They are only the suggestions or promptings by which the soul bethinks itself of the Ideas. Material things merely hint to the soul of the existence of the Ideas.

It is important in this connection to point out that Plato's conception of immateriality is not to be taken as what we mean in modern times by the spiritual or psychical ; for, according to Plato, our psychical func-

tions belong to the world of Becoming, just as the functions of our body and other perceptual things belong to it. Besides, even the Ideas of sense qualities have reality. Plato does not identify the human mind with the incorporeal world of Ideas, nor does he make the modern dualistic division of the world into mind and matter. The immaterial world is "other than" the world of perception, and bears the relation to the material world of the unchanging to the changing, of the simple to the manifold, of Being to Becoming.

The Development of Plato's Metaphysics — The Development of Plato's Ideas in the Two Drafts. The twofold world with its new evaluation of the Socratic conception and of the Protagorean perception was, after all, only Plato's point of departure for his constructive work. It was his first and undeveloped apprehension of a theory of Ideas. It appeared first in the *Meno* in his doctrine of recollection and immortality, which was written in his second period just after his series of splendid polemics against the Sophists. From this time for a full half-century Plato developed the conception of a twofold world into a Theory of Ideas. In the course of time he found himself confronted with three problems: (1) How many Ideas are there? (2) What is the relation between Ideas and physical things? (3) What is the relation of the Ideas to one another? Plato's answers to these three questions compose what is known as his Theory of Ideas. However, he answers these three questions differently when he first considered them than later, when his grasp upon the significance of his problem became more mature. Plato's Theory of Ideas, therefore, may be said to have had a development in two stages. These two stages are called

his "two drafts" (Windelband) of the Ideas. We shall now present, first in summary form and then in more detail, his answers to these three questions in the two drafts, and thereby show how his theory developed to its final formulation.

Brief Comparison of the Two Drafts of the Ideas.

1. The Earlier Draft of Ideas.

(a) *The Number of Ideas* is infinite.

(b) *The Relation of Ideas to Physical Things* is similarity. The Ideas on their side are spoken of as having a "presence" in physical things, but never fully appearing in them; the physical phenomena on their side are spoken of as "participating" in the Ideas.

(c) *The Ideas are Related to One Another* logically, as genera to species, but they are only roughly classified by Plato.

2. The Later Draft of Ideas — Plato's Final Statement.

(a) *The Number of Ideas* is limited to those of worth, mathematical relations, and nature-products, but Plato never arrived at any definite selection.

(b) *The Relation of Ideas to Physical Things* is teleological. The Ideas are the ideal or purposeful ends of physical objects.

(c) *The Ideas are Related to One Another* teleologically. The Idea of the Good stands at the head, and is the purposeful end of all the other Ideas.

Comparison of the Two Drafts of Ideas in More Detail.

1. The Number of Ideas in the Earlier and Later Drafts compared. When Plato first presented the Theory of Ideas to himself, he conceived their number to be infinite. There are Ideas of everything that is

thinkable. There are as many as there are class concepts, as there are qualities of things in the universe, as there are common nouns in the language. But it was pointed out to Plato that he had only reproduced and paralleled in the immaterial world what exists in the material world; that such a theory did not solve, but only doubled our difficulties. Then there were technical difficulties in the conception of the Ideas of everything — of things, qualities, relations, — good, bad, and indifferent. But what probably appealed to him most cogently was the raillery to which he found his theory subjected (see *Parmenides*), that he as a Greek could think of ugly Ideas, like hair and filth, as real. The result was that in the later drafting of his theory the number of qualities worthy to be called Ideas becomes very much limited. Plato makes the elimination from no avowed principle except that of worth, because as a Greek it was absolutely repellent to him to regard anything as real except worth. Consequently in his later dialogues he speaks of (1) Ideas having an inherent value, like the Good and the Beautiful, (2) Ideas corresponding to nature products, (3) Ideas of mathematical relations. Norms of value thus take the place of class-concepts, and in his selection of Ideas his choice is determined more and more by their moral worth.

2. The Relation of Ideas and the World of Nature in the Two Drafts compared. Plato did not construct his world of Ideas in order to explain the world of physical nature. His original purpose was to find an object for knowledge; and his Ideas were born out of his striving to give a reality to the conceptions of Socrates. In his evaluation of the doctrine of his mas-

ter he had drawn a distinction between the two worlds, but he had not thought of explaining one by the other. They were related and distinguished, but one threw no light upon the other. In Plato's first draft of the Ideas he speaks of this relation as *imitation*. The phenomena are an imitation of reality. The Ideas are the originals and physical objects are copies. To state the relation in modern terms, the laws of the growth of a tree are permanent, while the tree changes. The lower world of Becoming has a similarity to the higher world of Being. As the Pythagoreans had conceived things as imitations of numbers, Plato, strongly influenced by the Pythagoreans, thought that concrete things correspond to their class concepts only in a degree. On the one hand, the individual thing partakes of the universal of the Idea, and this is called "participation" in the Idea. On the other hand, the word "presence" describes the way the Idea exists in the thing, which means that the Idea is present in the thing so long as the thing possesses the quality of the Idea. The Ideas are present and then withdraw, and thus the perception changes.

In the second drafting of the Ideas, Plato has become conscious of the need of explaining physical nature by the Ideas. He did not at first think of explaining the nature of the physical world by his metaphysical reality. It was an afterthought, and arose out of the compulsion of having a systematic theory. His conception of the world of Ideas as the world of true Being ultimately demanded that the world of physical nature should be not merely "other than" but dependent upon the Ideas. The Ideas are unchanging; the phenomena are changing. If the Ideas are the reality,

of the changing world, in what other sense can they be its reality than as its cause? The *Meno*, *Theætetus*, *Symposium*, and *Phædrus* do not discuss this problem. The *Sophist* proposes it, and in the *Phædo* the thought is first expressed that the Ideas are the causes of physical phenomena appearing as they do appear. But how can the Ideas be causes, when the very conception of them as pure and immaterial realities denies to them all qualities of motion and change? The Platonic theory reached its zenith in its solution of this problem. The Ideas must be conceived as the causes of nature phenomena, and still as not moving nor suffering change. They are teleological causes. They are the realized ends of the phenomenal world. The world of Ideas is the actual goal of perfection for *physical* nature. The world of Ideas is not only the truth of all knowledge; it is also the perfect teleological cause of all actual change. This thought is developed in the *Philebus* and the *Republic*, where the Ideas as a whole, and in particular the Idea of the Good, — to which all the other Ideas are means, — stand as the final cause of all occurrence. The physical phenomena stand therefore in a teleological relation to the Idea of the Good. From the Good all things get their meaning. It permeates and explains all.

3. **The Relation among the Ideas in the Two Drafts compared.** It was natural that the conception of a pluralism of Ideas should lead Plato to a consideration of the law of their relationship. A systematic theory of a multiplicity of reals involves their orderly relationship. They cannot exist independently in the same world. What is the relationship among the Ideas? In the earlier drafting of his theory Plato was principally

attentive to the relations of coördination and subordination among the Ideas; in the possibility of the division of class concepts into genera and species. The relationship that he sought was logical relationship, the relationship that the scientist seeks to find in the classification of plants or rocks. Just what result Plato tried to reach by such a logical classification of his realities, it is difficult to say. He was not successful. His attempt to erect a logically arranged pyramid of conceptions with the most abstract at the apex was not carried out.

In his second drafting of the Ideas, Plato felt the inadequacy of a mere logical relationship among them, and conceived them to be teleologically related. His reduction of the number of Ideas had naturally brought about a new conception of their relationship. There must be some principle for their elimination, for the rejecting of some and the keeping of others. That principle was the principle of their ethical worth. That is to say, the Idea of the Good, which had been the standard for eliminating some concepts from the list of Ideas and for retaining others, now became for him the principle of the relationship of the Ideas among themselves. Plato turned from the logical to the teleological relation among Ideas. The Idea of the Good embraces and realizes all the others. It is therefore the absolute end of all the other Ideas, and they bear the relation to it, not of particulars to a general term, but of means to an end. The principle in their selection becomes the principle of their arrangement.

Plato's Conception of God. The above sketch of the formation and development of Plato's theory of Ideas shows how difficult it would be to frame a short defini-

tion of them that would at the same time be adequate. As he finally defined them, they are immaterial archetypes or ideals, dominated by a moral purpose. This dominating moral purpose in the Ideas is the highest Idea of all, the Idea of the Good, which stands above all the others and gives to them and to everything else their value and indeed their actuality.

Is this Idea of the Good the same as God? Plato calls the Good "Deity" and the "World Reason," and ascribes to it the name of Nous. Nevertheless the Idea of the Good is not the same as the Christian God, and Plato is only showing here the influence of Anaxagoras' conception upon him. (See p. 47.) The Idea of the Good is not a person or a spiritual being. It is merely the absolute ethical end and purpose of the world. Plato did not attempt to give it a content, any more than did his master, Socrates; but Plato presupposed it, because it was in itself the simplest and most comprehensible thing in the world.

Plato's Conception of Physical Nature. Plato constructed a rough sketch of the philosophy of nature in his later years, in compliance with the needs of his School, and perhaps with the urging of his pupil, Aristotle. In his earlier period, he would have nothing of physics, and was in this respect quite in accord with the spirit of Socrates. To the end of his life he maintained that there can be no true knowledge of the physical world; for it is a world of change, and therefore all scientific conclusions about it could be only probable. In a mythical account in the *Timæus* he drew a picture of the constitution of the world. He conceived a Demiurge or world-forming God to exist, and he thought that this God made the world out of not-Being

or empty space "with regard to the Ideas." The world thus constructed is conceived by Plato as a huge living thing, composed of a visible body and an invisible soul. The world-soul sets the world-body in a circular motion, which motion was considered by antiquity to be the most perfect of all motions. In sharp opposition to the mechanical theory of the world, Plato conceived the world to be endowed with knowledge, of which the spherical motion in its return upon itself is the symbol. The world is unitary and unique, the most perfect and most beautiful world, and its origin can be traced only to a reason working toward ends. Plato's physics, of which the above is an abbreviated account, will be seen to be of little importance; but it was unfortunately, as we have said, this side of his doctrine that was emphasized in the Middle Ages.

This mythical account shows, however, the inherent dualism in Plato's doctrine. The Idea never fully realizes itself in corporeal things, and Plato was called on to explain the cause of the evil and imperfection of the physical world. Moreover, the imperfection of the physical world got new emphasis in the influence upon him of the Pythagorean doctrine, which had set the perfect and imperfect worlds in opposition. What prevents the Idea from fully appearing in phenomena? The more Plato conceived the world of Ideas as ethical Ideals and a kingdom of pure worth, and the more teleological the Ideas became, the less could he regard the Ideas as the cause of imperfection in nature. Ideas are Being, and the essence of perfection. The cause of imperfection must therefore be that which has no being whatsoever. The physical world as "becoming" has participation, not only in that which has Being (Ideas),

but in that which has no Being (empty space). The physical world has a composite character. It has sprung from the union of the Ideas and an absolutely negative factor, which Plato calls empty space. This eternal negative is formless and unfashioned, but it is capable of taking on all possible forms. The physical universe is therefore neither Ideas simply, nor matter simply, but a composition of the two. This non-Being is not like the matter, "unformed stuff," of Aristotle, from which all sensible things are made; but it is that in which Ideas have to appear. The Ideas are plunged into this empty non-Being, which they take on as a veil. And just this is the origin of imperfection; non-Being withholds the Ideas from perfect expression. Non-Being, or empty space, is an indispensable auxiliary to the Ideas, for without it no physical universe would be possible. But at the same time it is the eternal foe and obstruction of the Ideas. Its coöperation with the Ideas is at the same time a resistance to them. It is the perpetual negation of Being, and the primary cause of imperfection, change, and instability. On this account the universe can never be like the Ideas, but it can approximate them. The soul of the world, for example, — which was regarded by Plato in Pythagorean fashion as number subjecting chaotic space to harmony, — is the most perfect reproduction of the Idea of the Good. The existence of matter detracts from the perfection of the world, but it does not detract from the majesty of the Ideas.

Plato's Conception of Man. Plato needed a psychology of another sort from that developed by the Cosmologists. His analysis of the mental life of man stands or falls with his metaphysical theory of Ideas, but it

has this importance : it is the first attempt to understand the psychical life from within.

The dualism of the two worlds appears in sharp outlines in the narrower field of the life of man. The soul of man belongs to both worlds. On the one hand, it belongs to the world of Becoming and partakes of that world through its sense-perceptions, desires, and their pleasures. In this lower world it is the principle of life and motion ; it is that which moves itself and other things. On the other hand, it shares in the world of Being through its intuitive reason or knowledge. It shares in the instability and change of psychical phenomena ; it also possesses the immutability of reality. Through its perceptions it constructs its "opinions" or inferences of changing phenomena ; through its reason it has true knowledge of the eternal Ideas. Therefore the soul must bear in itself traits that correspond to the two worlds. Plato conceives man to have an irrational and a rational nature ; and he divides the irrational nature into two parts, — the noble irrational part and the ignoble irrational part. The rational part of man is the reason, the noble irrational part is the will, the ignoble irrational part is the sensuous appetites.

Man	{	Rational nature = reason.	{	Noble = will
		Irrational nature		Ignoble = sensuous appetites.

This is the celebrated doctrine of the "three parts" of the soul. Are they three parts or three functions of the soul ? Plato is not clear as to this point. He sometimes speaks of them as three divisions, and treats them as separable in such a way that only the reason is immortal and the other two parts are mortal. Again, he

speaks of the soul as a unity, which carries with it in the next life all three functions. In this latter meaning the three parts are three natures or three different degrees of worth of the unitary soul.

Plato's Doctrine of Immortality. Beginning with this conception of the dual nature of the human soul, Plato reasons both backward and forward from it: backward to its pre-existence, and forward to its post-existence, — its existence after death. In the *Phædo*, Plato has put into the mouth of what has become his Platonized Socrates his final thought concerning the relation of this present life to its past and its future. It is plainly the doctrine of the transmigration of souls, which he got from the Pythagoreans. The soul has a reality that is imperishable, and the soul is rewarded or punished for its conduct in one existence by the kind of existence into which it is metamorphosed. In prison, on that fatal day when he drank the poison, Socrates explained to those around him why he was so cheerful at the thought of death. Is not our present existence a kind of death? Is not the soul in the present life deterred from true knowledge by the trammels of the bodily desires? The true philosopher is he who turns away from his body's passions, — dies to them, and tries to live the reality of the world of Ideas. We shall have full knowledge when we pass beyond the grave and then we shall be rewarded, if we have striven truly. But at present our body hampers and misleads us with its perceptions of changing mortality around us, and with its transitory desires. This life itself is the reward or punishment for our conduct in our preceding state.

1. The Immortality of Pre-existence. What proof does Plato offer for our existence before this life? The

Ideas, these testimonies of reality, form a part of the human soul. They are eternal, and have not been created by the soul. Knowledge is not the origination of a new truth, but is the recognition of Ideas, whose presence the mind merely records. Greek psychology never got much farther than this. The modern psychological conception of the soul as a dynamic something, which creates its own content, was quite foreign to the Greeks. To Plato, as to all other Greeks, the soul is as passive as the wax that receives the impress of the seal. All Greek psychology was under this general limitation: all ideas must be "given" to the soul. Therefore if the Ideas are not "given" by perception, because perception is of the changing; if nevertheless the soul finds itself in possession of the Ideas on the occasion of perception; if the soul did not create the Ideas, because the soul is by nature passive; the logical and only conclusion is that the soul was already in possession of the Ideas in a pre-existent state. Pre-existence is the only way of accounting for the full-born knowledge of the soul, and it is interesting to note how important was the pre-existent state to the imagination of the ancient world.

Plato therefore advanced the doctrine of reminiscence, or as he called it, *Anamnesis*, as proof of our pre-existence. Knowledge is recollection. The Ideas have always been present in the mind, and when we recognize them we have knowledge. The Ideas have no past or future, but they always exist. It is the mind that undergoes awakening — an awakening to their existence in itself. When the mind sees the objects of physical nature, it awakens in painful astonishment at the contrast between the sense world and the Ideas of

its native world of immateriality. In a mythical representation in the *Phædrus*, Plato supposes that before the present life our souls have beheld the pure Ideas in their full reality, that the Ideas had been forgotten in our birth into the present life, but that the perception of similar corporeal things calls the soul back to the Ideas themselves. Then the "Eros" is awakened — the native philosophical impulse or inborn love for the Ideas, by which the soul is raised again to the knowledge of that true reality. Only the pure Ideas themselves will satisfy this longing; the embodiment of the Ideas in art or personalities is not adequate. The Eros ties us to the Ideas. God does not have this longing, for He fully knows the Good. The ignorant man does not have this longing, for he does not suspect the existence of the Ideas in himself. The Eros is the homesickness that the lover of the truth feels.

Our birth is but a sleep and a forgetting,
The soul that rises in us, our life's star,
Hath had elsewhere its setting,
And cometh from afar;
Not in entire forgetfulness,
And not in utter nakedness,
But trailing clouds of glory do we come
From God, who is our home.*

When, in the *Meno*, the Sophistic dilemma was proposed to Socrates, "How can inquiry be made into what we know or into what we don't know?" Socrates pointed out that the only escape from the dilemma was the process of recollecting, and that knowledge is the thing recalled. Socrates then called a slave to him, and by skillfully questioning him found that the slave re-

* Read Wordsworth's *Ode on Intimations of Immortality*.

cognized the mathematical relationship between the square on the hypotenuse of a right triangle and the sums of the squares on the other two sides. "The ignorant slave can only have been recollecting," says Socrates. Mathematical knowledge is extracted from the sense-perception of the slave only because the slave has through such perception the opportunity of recollecting Ideas present in himself and not hitherto suspected by himself. In Plato's system, mathematical forms have an important place. They are the links by means of which the Idea shapes space teleologically into the sense world.

2. **The Immortality of Post-Existence.** Plato's ground for belief in the existence of soul after death is practically the same as that for its previous existence. Its destiny hereafter depends upon how far it has freed itself in this earthly life from the sensuous appetite. As proofs for future existence Plato mentions the soul's possession of the Ideas, the simplicity and unity of the soul, the soul as the principle of life, and the goodness of God. However weak Plato's arguments may be for the existence of future immortality, his absolute belief in it is one of the chief points in his teaching. It is interesting to note that the modern western world seems to have no concern in the previous state of the soul, but through the influence of the Christian religion has focused its attention upon the future life. Oriental religions contain the doctrine of pre-existence and the transmigration of souls, but not in the same sense as Plato. In Plato the soul possesses an identity that persists. It has all the qualities of the Ideas, but is also an entity possessing these qualities. It has non-origination, indestructibility, unity, and changelessness. The doctrine of the immortality of post-existence had

appeared in the Greek religion, but this is the first time that we have found it as a part of philosophic teaching. The student will, of course, feel the difficulties in Plato's conception as he has presented it. For how can the soul preserve its individuality as a unity, when the soul belongs in part to a world which is temporal?

The Two Tendencies in Plato. From the doctrine of the two worlds there are two distinct tendencies running through the entire teaching of Plato. These are (1) the tendency to glorify nature, and (2) the tendency to turn away from nature to ascetic contemplation. On the one hand, Plato felt within himself the light heart-beat of the artist, and the Hellenic love of life was strong within him. He felt that the Idea of the Good was realized even in the world of sense, that there was pleasure in the sensuous imitation of the Idea, in practical artistic skill, and in an intelligent understanding of mathematical orderings. These were at least preparations for the highest Good, which consisted in knowledge of the Ideas. On the other hand, one finds beside this the ascetic tendency to be repelled by nature, a negative ethics that would leave the world of sense and would spiritualize the life. The *Theætetus* sets up an ideal of retirement for the philosopher, and points out that he should find refuge as soon as possible from the evils of the world in the divine presence. The *Phædo* pictures the whole life of the philosopher as a dying, a purification of the soul, an existence in prison, from which escape is only by virtue and knowledge. This ascetic tendency seems very anti-Greek; and yet is it foreign to Greek life? In Greek history do we not find, by the side of the Epic and the glorification of nature, the Mysteries and the withdrawal of the indi-

vidual from the world? Both these historic tendencies appear in Plato, and on the whole the ascetic tendency is stronger. The Ideas are contrasted with the nature world more often than they transfigure it. The dualism of Heaven and earth is emphasized, and the contrast is strongly drawn between the reality of the Ideas and the temporality of sense.

Platonic Love. Described in technical terms, in both Socrates and Plato, Love (Eros) is the philosophic and not a purely intellectual impulse. Its rather more didactic character in Socrates of an attempt to engender knowledge and virtue in others appears in Plato in a larger way as the personal and practical realization of the truth. Reduced to its simplest terms, Platonic Love is the longing of the human being in his imperfectness for perfectness and completeness. It is the innate desire for immortality.

True love, according to Plato, takes its beginning in the astonishment or pain at the presentment of the Ideas through remembrance, and the starting-point of Love in an individual is the principle fundamental in pre-existence. The philosophic impulse for the Ideas takes the form of Love, because visible beauty has a special brightness and makes a strong impression on the mind. Love belongs only to mortal natures; for they, since they do not possess the divine unchangeableness, have to propagate themselves continually. Love may be described therefore as the propagative impulse. On the one side it may be viewed as an inspiration from above, springing from the higher, divinely-related nature in man; on the other hand it may be viewed as an aspiration from below of the sensuous and human in man. On this side it is a yearning and not a possession; and

it presupposes a want. Analyzed in this way, Love is the middle term between having and not having. It is the union of the higher and lower natures in man, and throughout the universe there stirs this longing for the eternal and imperishable.

What is the object of this Love, — of this desire of the finite to fill itself with the eternal and to generate something enduring? That object is the possession of the Good, which is happiness. The possession of the Good is immortality. What is the external condition of Love's existence? The presence of Beauty; for this alone, by its harmonious form, corresponds to our desire and awakens it. Does this Love appear first in its complete realization? No; there are many kinds of beauty, and Love is as various in degree and kind as beautiful objects. Love rises step by step, and is realized in a graduated series of forms. There is Love for beautiful shapes, sexual love; Love for beautiful souls, and this appears in works of art, education, and legislation; Love for beautiful sciences, the seeking of beauty wherever found; and finally Love for the pure, shapeless, eternal, and unchangeable — the Idea, which is immortality. All else is preliminary to the dialectical knowledge of the Ideas. In all this, man is reaching out from his sense of want for satisfaction, from his poverty to the completed riches of life. Love bears him on from height to height until, in religion and Love of the Good, man gains his immortality. In Platonic Love all kinds of Love have place in pointing the soul onward to the divinely perfect. Yet this Love for the divinely perfect is the soul's aspiration from the beginning, and all the preliminary stages are only the uncertain attempts to seize the Idea in the copies. Love, therefore, is this universal struggle

of the finite to inform itself with the Idea; and delight in any one object of beauty is a stage in the development of this impulse.*

Plato's Theory of Ethics. Plato's Theory of Ideas is, after all, fundamentally only an outspoken ethical metaphysics, and his Ethics is his most fruitful accomplishment. Plato's ethical teaching is therefore involved in all that we have said about him up to this point. An understanding of his ethics includes an understanding of the formation and growth of his dialectic, an insight into his physical theory, knowledge of the two tendencies which run through his teaching, and especially an understanding of his doctrine of Love. If some of the previous exposition is repeated, it will be only to bring out more fully his ethical teaching as a special science. We shall speak of three topics under this general subject of his ethics: (1) his development of his theory of the Good; (2) the four cardinal virtues; (3) his theory of political society.

I. Development of Plato's Theory of the Good. Plato betrays his ascetic tendency in his first drafting of the Ideas and, as we have said, the double-world theory is the cause of this. Only one of the two worlds is real and will appeal to the Wise Man. The soul belongs to the supersensible world, and the knowledge, of which virtue consists, takes man away from the sensible world. Since earthly life is full of evil, the soul should die to it and turn away as soon as possible to the divine presence. This ascetic aspect of morality is set forth in the *Phædo* and the *Theætetus*.

* Read Edmund Spenser, *Hymn in Honor of Beauty*; Emerson, *Essay on Love*, also the poem on *Initial, Dæmonic, and Celestial Love*; Bacon, *Essay on Love*; Patmore, *Angel in the House*; Sill, *The Two Aphrodites*.

In the general development of his metaphysics in the second drafting of his Ideas, Plato's ethical theory developed also. He not only went beyond the abstract statement of Socrates, but beyond his own original asceticism. When he brought his two worlds into teleological relationship, he was logically compelled to abandon his conception of ascetic morals. The physical world has now a relative reality, and by the same sign sense-life has a relative moral value. It was Plato's firm conviction that moral conduct makes man truly blessed, in this and another world. He still held, too, that this blessedness, this complete perfection of the soul, this sharing in the divine world of the Ideas, is the Highest Good. Yet he now came to recognize other kinds of happiness as steps toward the ideal Good. There are varieties of Goods, as appeared in his doctrine of Love. Besides the intuition of knowledge and its pleasures, there are physical Goods and their pleasures. Intellectual pleasure may be unmixed with pain, but there are also sensuous pleasures unmixed with pain. Here is indeed Plato, the Greek, speaking; Plato, the Greek artist, impelled by the charm of the Greek world around him. Strongly as he combated the Cyrenaic hedonism, and closely as he was allied to Socrates, his Greek nature gave way before the manifestations of the Idea of the Good in the physical world. The pleasure in nature objects, in educational development, in the practical and plastic arts, in mathematical sciences, and in the orderliness of life—all these became for him preliminary stages in the full participation in the ethical Good. They came to have for him a relative value, as expressed in the *Philebus*, *Republic*, and *Symposium*.

2. The Four Cardinal Virtues. But Plato went

farther, and was not content merely to point out the place of human conduct in the twofold world. He developed his theory of ethics systematically. He classified the virtues on the basis of his threefold division of the soul. Naturally enough, in his first draft of his theory, Plato followed Socrates in reducing the single virtues to one, viz., the virtue of knowledge. In his second drafting, however, in the later dialogues, he assumed their distinct independence, and he reflected upon their respective spheres. A virtue corresponds to each part of the soul. Each part has its own perfection, which is its virtue. Moreover, in so far as one or another part of the soul preponderates in different men, so far are they suited to developing the corresponding virtue.

Soul (<i>Justice</i>)	{	Rational nature in brain — (<i>Wis-</i>	{	Noble part—in heart
		dom)		(<i>Courage</i>)
		Irrational nature		Ignoble part—in liver
				(<i>Temperance</i>)

From the above scheme it will be observed that the rational nature has the brain as its organ and reaches its perfection or virtue in Wisdom; that the ignoble irrational nature has the liver as its organ, and reaches its virtue in self-control or Temperance. Finally, since the perfection of the whole soul consists in the orderly relation of its single parts, so subordinated and regulated that the soul can reach its highest perfection, the fourth and highest virtue is Justice. *The four cardinal virtues are Temperance, Courage, Wisdom, and Justice.*

3. **Plato's Theory of Political Society.** The virtue, Justice, has little meaning in individual ethics, and as an ethical perfection can only be attained in society.

There is no English word that is quite the equivalent for the Greek term, but Justice is the usual translation. Justice, however, does not contain the moral spirit of the Greek word. Consistent with his conception of the Ideas in his metaphysics, Plato's ideal of moral perfection is to be found, not in the individual, but in the species. Plato pictures less the perfect man than the perfect society. Perfect happiness is rather that of the social whole than of the individual, and this ideal of happiness can be reached only in the ideal State. That is why the dialogue, the *Republic*, occupies so important a place in Plato's writings. It is an attempt to show how the fourth and last virtue, Justice, can be attained. The first book was written in Plato's early period, and was perhaps called a "dialogue concerning Justice." Justice is distinctly the social virtue found only in a perfect society, and it will make possible the fulfillment of Wisdom, Courage, and Temperance. The individual man is a vital being whose heart is the central organ, whose characteristic virtue is courage. His courage is indeed a combination of wisdom and temperance. The picture is of the individual man, not amenable to society, but in "a state of warfare." In such isolation Justice would not exist as a virtue.

The political state is necessary if the Idea of the Good is to be manifested in human life. The state is the true educator in Justice, and at the same time the ideal state will be the realization of Justice. The task of the state everywhere is the same, to wit, to direct the common life of man so that every one may be happy through virtue. The result may be attained only by so ordering the relations of society that Justice may prevail. Plato's *Republic* is a carefully worked-out plan

of such an ideal society. The author made several attempts at Syracuse with the aid of Dion to get first the elder and then the younger Dionysius to transform the tyranny into an ideal state. These attempts resulted disastrously. In the disappointment of his old age that his ideal scheme had never succeeded, he wrote the *Laws*, which is a revised version of the *Republic* with the Pythagorean number theory as a basis.

The Spartan state is his model. The Platonic Republic is aristocratic. There is paternal government in everything, censorship of everything. Each individual's course is marked out for him. When Greek political life was undergoing dissolution, Plato raised the ideal of political unity as necessary to individual happiness as against the anarchism of segregation. Yet even in this he was reflecting the current distrust of political institutions. The comparison of existing political conditions with his own political ideal reinforced his aristocratic leanings, and made him the more distrustful of the political possibilities of a democracy. He believed that an intelligently worked out scheme of government was practicable, and should be forced upon people, if necessary. In no other way was political salvation possible.

Since the State is the man "writ large," it has three parts, corresponding to the three parts of the human soul. There is (1) the working or peasant class, which corresponds to the appetitive part of man; the only object of such a class is to furnish food for the State, and the highest virtue of this class is temperance. The peasant can only work, eat, and drink, and the highest praise of him is that he controls his appetites. (2) The warrior class guards the State within and without; and its characteristic virtue is courage. The will must show its high-

est efficiency in guidance of the emotions. (3) Highest of all is the cultured class of philosophers or rulers, who determine by their insight the laws that should rule the State. The virtue of this class is wisdom, for is this class not the brain of the State? The perfection of the entire State exists when the three classes have their proper distribution of power. Then does justice exist. The duty of the rulers is therefore to have the highest wisdom possible, of the warriors to be unflinching in their devotion to duty, of the peasants to exercise self-control. Thus Plato's Republic is an aristocracy in the hands of the carefully cultured, which consists of the two upper classes. By means of community of wives, the exposure of deformed infants, and the State's education of the children of the two upper classes, a continuous selection can be made, the two upper classes can be renewed, and all private ends can be renounced in favor of the State. Thus the sole end of a community is moral education, and Plato arranges his ideal community with reference to that. The two upper classes are a great family, to whom this is intrusted. They have dedicated their lives to the furthering of science and to its administration.

A SELECTION OF PASSAGES FROM PLATO FOR ENGLISH READERS.

By Professor Benjamin Jowett, late Principal of Balliol College, Oxford.

The figures refer to the pages in the margin of Professor Jowett's translation of Plato's Dialogues; the letters (A, B, C, D, E) to the subdivisions of these pages.

FIRST VOLUME.

CHARMIDES.

Socrates prescribes for Charmides' headache.

156 D (. . . 'Such, Charmides, is the nature of the charm' . . .)

-157 C (. . . 'my dear Charmides.')

LYSIS.

We only trust those who appear to know more than ourselves.

206 D ('Upon entering' . . .)

-210 B ('He assented.')

LACHES.

(1) The art of fighting in armour is useless to the soldier.

182 E ('I should not like to maintain' . . .)

-184 C (. . . 'his opinion of the matter.')

(2) The harmony of words and deeds.

188 C ('I have but one feeling' . . .)

-189 B (. . . 'the difference of our ages.')

PROTAGORAS.

(1) The Sophists at the house of Callias.

314 B (. . . 'And now let us go' . . .)

-316 A (. . . 'rendered his words inaudible.')

(2) Protagoras tells the story of Prometheus and Epimetheus.

320 D ('Once upon a time' . . .)

-322 D (. . . 'a plague of the state.')

(3) The education of a Greek child.

325 D ('Education and admonition' . . .)

-326 E (. . . 'would be far more surprising.')

EUTHYDEMUS.

The doctrinaire politician and the true philosopher.

304 B ('Such was the discussion, Crito' . . .)

-to end (. . . 'and be of good cheer.')

CRATYLUS.

The significations of the various letters.

426 B ('My first notions' . . .)

-427 C (. . . 'and out of them by imitation compounding other signs.' . . .)

PHAEDRUS.

(1) The philosopher must study the nature of man.

229 A ('Let us turn aside,' . . .)

-230 A (. . . 'a diviner and lowlier destiny?' . . .)

(2) The banks of the Ilissus.

230 B (. . . 'But let me ask you, friend,' . . .)

-E (. . . 'in which you can read best.')

(3) The soul in a figure and her transmigrations.

245 C ('The soul through all her being' . . .)

-257 A (. . . 'leave you a fool in the world below.')

- (4) The true orator.
 269 E ('I conceive Pericles' . . .)
 -272 C (. . . 'and yet the creation of such an art is not easy.')
- (5) The tale of Thamus and Theuth.
 274 C ('I have heard a tradition of the ancients' . . .)
 -275 C (. . . 'that the Theban is right in his view about letters.')
- (6) Speech better than writing.
 275 C ('I cannot help feeling' . . .)
 -277 A (. . . 'to the utmost extent of human happiness.')
- (7) The true art of composition.
 277 B ('Until a man knows the truth' . . .)
 -278 D (. . . 'poet or speech-maker or law-maker.')

ION.

The inspiration of the poet.

- 533 C ('I perceive, Ion,' . . .)
 -536 C (. . . 'not by art, but by divine inspiration.')

SYMPOSIUM.

The Character of Socrates.

- (1) His fit of abstraction in the porch.
 174 A ('He said that he met Socrates' . . .)
 -175 C (. . . 'Socrates entered.' . . .)
- (2) His strange appearance and marvellous power of influencing others.
 215 A ('And now, my boys,' . . .)
 -216 C (. . . 'so that I am at my wit's end.')
- (3) His endurance, eccentricity, and bravery.
 219 E (. . . 'All this happened' . . .)
 -222 A (. . . 'a good and honourable man.')

SECOND VOLUME.

MENO.

Learning is only Recollection (*ἀνάμνησις*): The Immortality of the Soul proved out of Pindar.

- 81 A ('I will tell you why' . . .)
 -E (. . . 'active and inquisitive.' . . .)

APOLOGY, OR THE DEFENCE OF SOCRATES.

The whole.

CRITO, OR SOCRATES IN PRISON.

The whole.

PHAEDO, OR THE LAST DAY OF SOCRATES' LIFE.

- (1) Socrates in prison.
 57-60 C (. . . 'pleasure appears to succeed.')

- (2) Why the philosopher is willing to die, although he will not take his own life.
 60 C ('Upon this Cebes said' . . .)
 -69 E (. . . 'it will be well.')
- (3) The Description of the Other Life.
 107 C ('But then, O my friends,' . . .)
 -115 A (. . . 'after I am dead.')
- (4) The Death of Socrates.
 115 A ('When he had done speaking' . . .)
 -to end.

GORGIAS.

- (1) The good man desires, not a long, but a virtuous, life.
 511 A ('You always contrive' . . .)
 -513 A (. . . 'their own perdition.' . . .)
- (2) The Judgment of the Dead.
 523 A ('Listen, then,' . . .)
 -527 A (. . . 'any sort of insult.')
- (3) The Moral of the Tale.
 527 A ('Perhaps this may appear' . . .)
 -to end.

[Appendix.]

I *Alcibiades*.

- Socrates humiliates Alcibiades by shewing him his inferiority to the Kings of Lacedaemon and of Persia.
 120 A ('Why, you surely know' . . .)
 -124 B (. . . 'ever desired anything.')

II *Alcibiades*.

- The Gods approve of simple worship.
 148 C ('The Lacedaemonians, too,' . . .)
 -150 B (. . . 'for me to oppose.')

Eryxias.

- The nature of money.
 399 E ('Then now we have to consider' . . .)
 400 E (. . . 'of no use to us . . . True.')

THIRD VOLUME.

REPUBLIC.

Book i.

- The commencement of the Dialogue : Cephalus on Old Age.
 327-331 B (. . . 'is, in my opinion, the greatest.')

Book ii.

- (1) The argument of Adeimantus.
362 E (. . . 'But let me add something more' . . .)
-367 E (. . . 'seen or unseen by Gods and men.')
- (2) The true nature of God.
376 D ('Come, then, and let us pass' . . .)
-383 A ('Your thoughts . . . my own.')

Book iii.

- (1) Grace and beauty in art and education.
400 D ('But there is no difficulty' . . .)
-402 A (. . . 'made him long familiar.')
- (2) The good physician and the good judge.
408 C ('All that, Socrates, is excellent,' . . .)
-409 E ('And in mine also.')
- (3) The true use of music and gymnastic.
409 E ('This is the sort of medicine' . . .)
-412 A ('You are quite right, Socrates.')

Book iv.

- Virtue the health, Vice the disease, of the Soul.
443 C ('Then our dream has been realized' . . .)
-444 E ('Assuredly.')

Book v.

- (1) The right treatment of enemies.
469 A ('Next, how shall our soldiers' . . .)
-471 C (. . . 'like all our previous enactments, are very good.')
- (2) The last wave: — The Government of Philosophers.
471 C ('But still I must say, Socrates.' . . .)
-473 E (. . . 'is indeed a hard thing.')

Book vi.

- (1) The Parable of the Pilot.
487 A ('Here Adeimantus interposed' . . .)
-489 D ('Precisely so, he said.')
- (2) The low estimation in which Philosophy is held by the World.
493 E ('You recognize the truth of what I have been saying?' . . .)
-497 A (. . . 'as well as of himself.')

Book vii.

- The Allegory of the Cave.
514 A-520 E (. . . 'present rulers of the State.')

Book viii.

Democracy and the Democratic Man.

555 B ('Next comes democracy' . . .)

-562 A (. . . 'the democratic man.')

Book ix.

{ The Many-headed Monster.

{ The City of which the Pattern is laid up in Heaven. }

588 A ('Well, I said, and now' . . .)

-to the end of the book.

Book x.

The Vision of Er.

614 B ('Well, I said, I will tell you a tale;' . . .)

-to the end of the book.

TIMAEUS.

(1) The Tale of Solon.

20 E ('Then listen, Socrates' . . .)

-26 D (. . . 'these ancient Athenians.' . . .)

(2) The Balance of Mind and Body.

87 C ('There is a corresponding enquiry' . . .)

-90 D (. . . 'the present and the future.')

CRITIAS, OR THE ISLAND OF ATLANTIS.

The entire Dialogue.

FOURTH VOLUME.

PARMENIDES.

The meeting of Socrates and Parmenides at Athens. Criticism of the Ideas.

126 A ('We had come from our home' . . .)

-136 C (. . . 'and see the real truth.')

THEAETETUS.

(1) Socrates, a midwife, and the son of a midwife.

148 E ('These are the pangs of labour' . . .)

-151 E (. . . 'by the help of God you will be able to tell')

(2) The Lawyer and the Philosopher.

172 B (. . . 'Here arises a new question' . . .)

-177 C (. . . 'Let us go back to the argument.')

SOPHIST.

The Pre-Socratic Philosophers and their puzzles.

241 D ('Will you then forgive me' . . .)

-246 D (. . . 'but seekers after truth.')

STATESMAN.

The Reign of Cronos.

269 A ('Again, we have been often told' . . .)

-274 E (. . . 'and at another time in another.' . . .)

PHILEBUS.

{ The first Taste of Logic. }
{ The Art of Dialectic. }

15 C ('Good; and where shall we begin' . . .)

-17 A (. . . 'and true dialectic.')

FIFTH VOLUME.

LAWS.

Book i.

(1) The true nature of Education.

643 A ('You seem to be quite ready to listen' . . .)

-644 B (. . . 'of every man while he lives.')

(2) Man a puppet of the Gods.

644 E ('Let us look at the matter thus' . . .)

-645 B (. . . 'more clearly distinguished by us.' . . .)

Book iii.

The Origin of Government.

676 A ('Enough of this' . . .)

-679 E ('Very true.')

Book iv.

(1) The virtuous Tyrant.

709 C ('And does not a like principle' . . .)

-712 A (. . . 'granting our supposition.')

(2) The life of Virtue.

715 E ('And now what is to be the next step?' . . .)

-718 A (. . . 'for the most part in good hope.' . . .)

Book v.

(1) { The honour of the Soul. }
{ Precepts for a virtuous life. }

726 A-732 D (. . . 'both in jest and earnest.')

(2) The best and second-best state.

739 A ('The next move' . . .)

-741 A (. . . 'to fight against necessity.')

(3) Riches and Godliness.

742 D (. . . 'The intention, as we affirm' . . .)

-744 A (. . . 'the work of legislation.')

Book vii.

- (1) The good citizen must not lead an inactive life.
806 D ('What will be the manner of life' . . .)
-808 C (. . . 'to the whole state.')
- (2) The education of the young.
808 D (. . . 'When the day breaks' . . .)
-809 A (. . . 'according to the law.')

{	810 A (. . . 'A fair time' . . .)	}
	-812 A (. . . 'come to an end.')	

Book viii.

The evils of licentiousness.

- 835 C (. . . 'There is, however, another matter' . . .)
-841 E (. . . 'wrongly indulged.')

Book x.

- (1) { The three classes of unbelievers. }
 { Advice to the young. }
 885 B (. . . 'For we have already said' . . .)
 -888 D (. . . 'the truth of these matters.')
- (2) God is not an idle ruler of the Universe, but orders all, even the smallest things, for our good.
899 D (. . . 'And now we are to address him' . . .)
-905 D (. . . 'any understanding whatsoever' . . .)
- (3) God cannot be propitiated by the gifts of the wicked.
905 D (. . . 'For I think that we have sufficiently proved' . . .)
-907 D (. . . 'will not discredit the lawgiver.')

Book xi.

- (1) The evils of retail trade, and the cure of them.
918 A ('After the practices of adulteration' . . .)
-919 C (. . . 'shamelessness and meanness.')
- (2) The honour of parents.
930 E ('Neither God, nor a man' . . .)
-932 A (. . . 'to what has now been said.' . . .)

Book xii.

- (1) The good state in its intercourse with the world.
949 E ('Now a state' . . .)
-951 C (. . . 'is ill-conducted.')
- (2) The Burial of the Dead.
958 C ('Thus a man is born' . . .)
960 A (. . . 'a fitting penalty.' . . .)

CHAPTER VIII

ARISTOTLE (384-322 B. C.)

Aristotle in the Academy and Lyceum. Many notable pupils gathered around Plato during his mastership of more than forty years. Plato's nephew, Speusippus, succeeded him as leader of the Academy, and for the next three hundred and fifty years the Academy is called by various names. It is the Older Academy under Speusippus and later; then it is known as the Middle Academy; and then, about 120 B. C., it is known as the New Academy. The history of the Academy is, however, a part of the Hellenic-Roman Period. It is sufficient to say here that the leaders succeeding Plato in the Academy added but little to philosophical speculation, although much to empirical research. The important fact is that the sceptre in philosophy passed from the Academy when Plato died and his greatest pupil Aristotle left it. Just as Plato stood among the pupils of Socrates as Socrates' most discriminating interpreter, so among the pupils of Plato there was one preëminent pupil, — Aristotle. Aristotle was too great a man to be subordinated to the leadership of Speusippus. Upon the death of Plato he left the Academy, and fourteen years later he returned to Athens and founded the Lyceum, which became under his mastership the most influential Athenian school. The Lyceum was an inclosed space of ground, like the Academy. It was situated just outside the walls of Athens, on the right bank of the Ilissus. It

was dedicated to Apollo, decorated with fountains, gardens, and buildings, and contained one of the great gymnasia of Athens. It was frequented by philosophers, and is known to have been the favorite walk of Aristotle and his pupils, whence they got their name of Peripatetics. Theophrastus, the most eminent pupil of Aristotle, bought a property near the grove and bequeathed it to the school. It was a religious foundation, like the Academy. The method of choosing the scholars varied at different times. The name Lyceum is from the same root as Lycian, and was given to Aristotle's school from the fact that the grove was dedicated to the Lycian Apollo.

Here, in the Lyceum, Greek philosophy was brought to its most complete expression. Here all the threads of Greek cosmological and anthropological undertakings were finally woven together. Here an adjustment was accomplished between Aristotle's two great predecessors, Plato and Democritus; and materialistic and idealistic realism crystallized in a theory of development. The great form of Aristotle rises to speak the final word of pure Greek civilization, at a time when the custody of Greece had passed from the hands of the Athenians, the Spartans, the Thebans in succession to the Macedonians. He was the most influential thinker that history had seen. In his formative power upon human thought he has scarcely a peer. Dante called him "the master of those who know." "In my opinion," said Cicero, "Aristotle stands almost alone in philosophy." Eusebius said of him, "Aristotle, nature's private secretary, dipped his pen in thought." Goethe remarked, "If now in my quiet days I had youthful faculties at my command, I should devote myself to Greek, in spite

of all the difficulties I know. Nature and Aristotle should be my sole study. It is beyond all conception what that man espied, saw, beheld, remarked, observed."

The portrait that we draw of Aristotle is very different from that of Plato. Instead of the deeply poetic temper, the man who sees all things in an ideal unity of infiniteness and vastness, we have before us now the scientist in search of facts, the accurate man of good sense, whose imagination does not soar above the clouds, but at the same time has extraordinary fertility in historical and scientific theoretical explanations. His was a life filled with the love of truth. His learning took up into itself the entire range of human knowledge in such a way as to include its earlier development. And what is more, he showed an equal interest in all departments. Aristotle was more of a scientist than Plato, for the theoretical rather than the ethical interest was fundamental in his work. He is the personification and completion of pure Greek learning.

Biography of Aristotle, 384–322 B. C.

Brief Chronological Sketch of Aristotle's Life.

First Period — Aristotle the Student — 37 years.

384–347 B. C.

384 Born in Stagira in Macedonia.

367 Entered the Academy. Remained 19 years.

347 Left the Academy upon the death of Plato.

Second Period — Aristotle the Traveler — 12 years. 347–335 B. C.

347 Went to the courts at Atarneus and Mytilene in Asia Minor.

- 343 Returned to the court of Macedon at Pella, in response to the summons of King Philip, to teach the young prince Alexander. Remained 4 years.
- 340 Went from Pella to Stagira to engage in scientific work. Remained 5 years.

Third Period — Aristotle the Leader of the Lyceum — 13 years. 335–322 B. C.

- 335 Founded the Lyceum in Athens. Taught and administered the school 12 years.
- 323 Fled to Chalcis.
- 322 Died in Chalcis.

Aristotle's Biography in Detail.

1. First Period, 384–347 B. C. — **Early Influences.** Aristotle was born in Stagira in Macedonia. His father was court physician to King Amyntas, the founder of the Macedonian power and the father of King Philip. He came from a long line of physicians (the caste, Asclepiad) who traced their origin to Asclepius. Little is known about the early years of Aristotle except that his father and mother died, leaving him in the guardianship of Proxenus of Atarneus. (Atarneus is the state in Asia Minor which he later visited.) It can scarcely be doubted that he was destined by his family to be a physician, and that the empirical works of Hippocrates and Democritus were the first elements of his early education. Aristotle grew up in this atmosphere of medicine of Macedonia, which explains his respect for the results of experience and his accuracy in details,—all of which contrasts him with the Attic philosophers.

He was sent by Proxenus to the Academy in 367 B. C.

at the age of eighteen, and he remained there for nineteen years, or until he was thirty-seven. He was not merely a pupil in the school, but his brilliancy won for him immediately a prominent position there. He became a teacher, an attractive writer, and champion of the literary spirit of the school. Even while he was a member of the Academy he became a famous man. It is difficult to say just how much influence the Academy had upon the casting of his thought. His scientific inclinations were formed before he went to the Academy; he got his immense scientific erudition in Asia Minor and in Stagira later, after he left the Academy. Probably the spirit of the Platonic school turned his attention to ethical and metaphysical theories, and probably it was due to his stay in the Academy that he became interested in rhetorical and purely cultural studies. At the same time his own influence must have been very great in forming the policy of the Academy, and he was probably responsible for its turning its attention to scientific matters.

The sources from which Aristotle drew the material of his philosophical science were therefore (1) his inherited taste for medicine and empirical science; and (2) the influence of the Academy in ethical, metaphysical, and cultural subjects. Both these factors appear throughout the philosophical development of Aristotle. On the other hand, it must not be forgotten that probably Aristotle's influence upon the Academy was as great as that of the Academy upon him. His own persistence along the line of empirical science shows itself in his period at Atarneus, Mitylene, and on his return to Stagira. Much has been said about an estrangement between Aristotle and his teacher, Plato.

This is probably idle gossip. Aristotle held his master in great esteem, as he himself testifies in his *Ethics*. Aristotle was an independent and original mind, and probably even in the school he would point out defects in Plato's thought, when his aged teacher would lead his theories upon mistaken lines. Plato said that his pupil Xenocrates needed the spur, while Aristotle needed the bridle. Aristotle was called the brain of the Academy.

2. Second Period, 347-335 B. C. — **Traveler and Collector.** When Plato died, and his nephew Speusippus became scholarch of the Academy, Aristotle, in company with Xenocrates, went to the court of Hermeias, ruler of Atarneus and Mitylene. Hermeias was another pupil of Plato at the Academy. Here Aristotle married twice, and here he resided for six years. In 343 B. C. he obeyed the summons of King Philip to come to Pella and become the tutor of Alexander. He acted in this capacity for four years, and seems to have been more fortunate than Plato as instructor of a king. His influence upon Alexander was very great. Without losing himself in the impracticable, Aristotle seems to have impressed high philosophical ideals upon the noble spirit of his kingly ward. Alexander says of Aristotle, "To my father I owe my life, to Aristotle the knowledge how to live worthily." During the tedium of the protracted campaign in Bactria, Alexander sent for the tragedies of Euripides, Sophocles, and Æschylus. The *Ethics* of his teacher was always with him. The ideals of statesmanship, the wide purposes in political control, the greatness of the aims of the young conqueror, as well as his self-control, his aversion to meanness and petty things, and his sublime moderation were due

in part to the teachings of Aristotle. Never was there a more fortunate conjunction of two great minds than here.

In 340 B. C., when Alexander entered upon his administrative and military duties, Aristotle became independent of the Macedonian court. He spent the most of these four years (340–335 B. C.) in scientific work at Stagira, in intimate companionship with his young friend Theophrastus, who later succeeded him as scholarch of the Lyceum. “Among the special subjects of study in the school of Mieza and Stagira, natural history formed a part. . . . Alexander at one time contributed eight hundred talents to forward his former teacher’s investigations in zoölogy, placed at his disposal a thousand men throughout Asia and Greece, with instructions to follow out Aristotle’s directions in collecting and reporting details concerning the life, conditions, and habits of animals, and in every way made his campaigns serve the purpose of scientific investigation.”¹ The reports of the ancients concerning the vast sums placed at Aristotle’s disposal for use in scientific investigation are of course exaggerated. That he made large collections during this period, as well as later, is certain. This was possible to him, first, because he was a rich man himself, and second, because of his relations to the courts at Atarneus and Macedonia.

3. Third Period, 335–322 B. C. — Administrator of the Lyceum. When Alexander entered upon his campaigns in Asia, and Aristotle felt himself free from immediate duty to him, he went to Athens and founded the Lyceum. This school very soon arose above the Academy, and became the model of later societies of scholars of antiquity. Its greatness partook of the great-

B. I. Wheeler, *Life of Alexander the Great*.

ness of Aristotle, — in the universality of its interests, in the orderliness of its administration, and in methodical coöperation. For twelve years he was the executive, teacher, administrator, and inspiration of this school — developing his philosophy, accumulating materials, and instructing his pupils. The enormous product of the school could not have been the work of one pair of hands. Nevertheless the writings, the immense collections, the ethical and political treatises, show a unity that speaks of one master-mind that had them under direction. When the Athenians began to rise against the Macedonian rule, Aristotle's position in Athens as a friend of Alexander became unsafe. He fled to Chalcis, excusing himself, so the tradition goes, because he wished to spare the Athenians a second crime against philosophy. He died in Chalcis the next year (322 B. C.).

A comparison of these three periods of Aristotle's life discloses the uniformity of that life, from beginning to end. He was, from the time he entered the Academy to the founding of the Lyceum, a teacher. Even as pupil of Plato his original mind was influencing the Platonic teaching into new channels. During his second period he was a traveler, to be sure ; but he was more, — a collector and a king's tutor. He was always Aristotle, the philosophical teacher. Hence the periods of his life cannot be so sharply marked as Plato's, and the lines that are drawn point only to phases of a life that had unity, like his doctrine. His life is a regular development from sources in his first period, and with no later deviating influence.

The Writings of Aristotle. On every page of Plato's dialogues you meet Plato ; in Aristotle's writings the

personality of the author is subordinated to his science. The collections of writings transmitted under the name of Aristotle do not give even an approximately complete picture of the immense activity of the man. They form, indeed, a stately memorial, even after the spurious writings have been omitted, but their bulk is small compared with what we know was the product of his literary workshop. Forty treatises have been preserved. A catalogue of the library of Alexandria in 220 B. C. includes a list of one hundred and forty-six others, which have since been lost. Aristotle was writer, lecturer, teacher, and the administrator of the Lyceum. His leadership of that school, his careful direction of his coöperators in research and study, was not only an instruction but an impulsion to independent scientific study for all time. His great collections of scientific data can be explained only by their being the combined efforts of many different forces, guided and schooled by a common master. The world was ready to take an account of stock, and Aristotle was the first encyclopædic philosopher.

1. The Popular Writings, published by Aristotle himself. These were intended for a circle of readers wider than his own school. No one of these works is extant in complete form. They were written by Aristotle during his life in the Academy. They were dialogues in form; in content they were discussions of justice, wealth, wisdom, rhetoric, politics, love, conduct, prayer, generosity, education, government, etc. They were less artistic than Plato's dialogues, but more original and striking; and they were full of happy inventions and rich thought, expressed in florid diction. The ancients spoke often of Aristotle's "golden flow of

thought," but this cannot truthfully apply to any save these lost writings.

2. **The Compilations.** These were excerpts from scientific works, collections of zoölogical, literary, historical, and antiquarian data, which Aristotle and his pupils had gathered together. Only a few fragments of the total remain. There were critical notes upon the Pythagoreans, reports of extracts of Plato's dialogues, a descriptive basis for zoölogy with illustrations, collections of previous rhetorical theories and models, histories of tragedies and comedies, discussions about Homer, Hesiod, Archilochus, Euripides, and other poets; there were historical miscellanies and reports concerning one hundred fifty-eight Greek state constitutions.

3. **The Didactic Writings.** These have in part been preserved, and they make up the collection of what we have of Aristotle's writings. They have a consistently developed terminology, but they are wanting in grace and beauty of presentation. The plan of the books is generally the same: the problem is precisely stated; then follows a criticism of various attempted solutions; then a discussion of the salient points of the problem; then a marshaling of the facts; and, finally, an attempt to get a conclusive result. The method is modern in its scientific procedure and the contrast with Plato is striking. Yet it must not be inferred that these books of Aristotle are orderly. There are repetitions, haste, unequal development of parts, and unfulfilled promises. These books were nothing else than the written notes which he had made the basis of his lectures and had intended to form into text-books in some future time. Only parts of the *Logic* seem to have been completed for text-book purposes.

These didactic writings are simply arranged as follows (Wallace) :

1. The treatise on Logic called *Organon*.

2. Speculative Philosophy.

First Philosophy or Theology or Metaphysics.

Mathematics (writings not extant).

Physics (including the history of animals and the psychology).

3. Practical Philosophy.

Ethics.

Economics.

Politics.

4. Poetic Philosophy.

Art.

Poetry.

Rhetoric.

Aristotle's Starting-Point. The two early influences in Aristotle's mental development offer an explanation for his philosophical point of view. These influences were his empirical training in medicine and his conceptual training in the moral ideals of the Academy. Plato had convinced him that if there were to be any true science, it must be founded on concepts that are unchanging. His own scientific training, however, reinforced by the influence of Democritus, made him respect the value of empirical facts. While the philosophical problem for Aristotle was the same as that for Plato, the difference between them was in the main a matter of emphasis due to their different starting-points. Plato started with the refutation of the Protagorean theory of perception, and consequently he emphasized the value of the conceptual world ; Aristotle, however, felt that Plato had overestimated the con-

ceptual world, and he emphasized the importance of empirical facts. Both when a member of the Academy and later, he strongly contended against Plato's evaluation of the world of Ideas, because they so transcended the sense world that they neither explained nor illuminated it. Aristotle's reaction against Plato's theory furthermore gives us a more correct notion of what Plato really taught. If conceptions are to enter into knowledge, they must not exist in the clouds of abstraction. He maintained that Plato had increased the difficulty of the problem by adding a second world of entities quite distinct from the world of nature. The same problem that Plato confronted still exists unanswered, said Aristotle. It is the problem of the two-fold world. If Ideas are apart from things, we could not know that they existed, we should not be able to know anything about them, nor should we be able to explain the world through them. It is true that Plato, in his later draft, had conceived Ideas to be teleologically related to the physical things, but how could this be if they were apart from things? Thus in his reaction from Plato's theory of Ideas, Aristotle reestablished the world of perceptual fact. This is the starting-point of Aristotle.

The Fundamental Principle in Aristotle's Philosophy. The first question then is, How did Aristotle reestablish the perceptual fact? What means did he employ to give the perceptual fact a reality? The answer to this question will be the statement of Aristotle's fundamental principle. It will show his advance over Plato by showing his new estimate of the perceptual world. Plato accepted the Protagorean doctrine of perception, but also gave it a new value by placing perceptions

beside conceptions in the world of reality ; Aristotle developed Plato's teaching about perceptions by linking them inseparably with conceptions. Aristotle felt that Plato's difficulties arose from the lack of close relationship between conceptual Being and perceptual fact. What is that linkage? What binds abiding reality and changing phenomena so closely? *The linkage is development.* Development is the relation between conception and perception. It is the fundamental principle in the philosophy of Aristotle throughout and places a new estimate upon the value of perception. Perceptual facts apart from conceptions have no reality ; conceptions apart from perceptions are mere abstractions. In the world of reality conceptual Being resides *in* the perceptual facts, and the perceptual facts express conceptions. They always exist together in a linkage or relationship that is teleological, purposeful — the linkage of development. An abstract statement of this relationship is, "Aristotle felt the conceptual necessity of the empirically actual." Perhaps the clearest statement of this fundamental principle can be made in the terms of evolution. It is this: *true reality is the essence which unfolds in phenomena.* Notice that this sentence has two parts equally freighted: *reality is an unfolding essence ; reality is in phenomena.* The true universal must be thought as realizing itself through its development in particulars ; the true concept as realizing itself through its development in percepts ; the true abiding Being as realizing itself in its development through change. On the one hand, reality is the essence of things ; on the other, reality has existence only in things.

True reality is the individual.

The individual consists of two aspects: (1) conceptual being, and (2) perceptual change.

These two aspects always stand in a relationship.

That relationship is developing purpose.

Here is the key to the teaching of Aristotle that seems to open the doors of its many chambers. In his metaphysics reality is the individual developing from possibility to actuality. In physics individual phenomena get a reality through their development from lower to higher types. In psychology the individual person is real when the particulars, the physiological and psychological states, develop toward the soul, which is their truth. So, too, in the great system of logic in which Aristotle was pioneer, he is simply trying to give the particular judgment a meaning by showing its linkage to the universal judgment. Everywhere the starting-point of Aristotle is the perceptual fact. Everywhere his purpose is to reestablish it by showing its relation to abiding conception in the individual.

It may be well to remark, however, that Aristotle does not altogether succeed in constructing a consistent theory. In spite of his criticism of Plato's transcendent Ideas, in many places Aristotle does not overcome Plato's dualism. Frequently he differs from Plato more in words than in meaning. We shall observe some of his inconsistencies in their place. We shall see that Aristotle as he meant to be was different from Aristotle as he was. Aristotle as he meant to be — Aristotle as the opponent of Plato's dualism — develops a philosophy from a single fundamental principle. Aristotle as he was, reverts at many critical points to Plato's dualism.

Aristotle's principle of development may appear at

first blush very much like the modern principle of evolution. As a matter of fact it was very different. In all Greek philosophy after Socrates the study of morals was fundamental. The ideal of Socrates, Democritus, Plato, Aristotle, and the later Schools was a moral ideal. Being moral it was fixed, and it fixed all the changes of life to it as a centre. Nature was to the Greek a museum of types oscillating around a perfect form. There was no evolution in the sense of progress. There was development within the individual—the boy becomes a man, the seed becomes a flower; but there was no evolution from genus to genus. Indeed, any variation of the individual from its type was considered a defect.

Aristotle's Logic. Aristotle felt that there must be a science of the methods of science; and so successful was he in its formulation that it has practically remained as he transmitted it. We are struck by the way in which he divided science into the special sciences, each with its well-defined field. It was perfectly natural that he should also, with his great power of abstract reasoning, discuss the body of rules for legitimate thinking. In science there must be an art of investigation, just as in rhetoric there is an art of persuasion. At an early period these logical writings were collected under the name *Organon*, because the Lyceum regarded them so intimately connected with scientific procedure as to be the instrument or “organ” of all knowledge. Certain parts of Aristotle's *Organon* are of doubtful genuineness. The important sections are the *Analytics*, a masterly logical groundwork of the conclusion and proof, and the *Topics*, which treats of the inductive methods of probability. Aristotle there-

fore made logic a preliminary and separate study, as it should be. It became the preface to his scientific work.

We shall briefly discuss Aristotle's logic, because it is an exemplification of his general philosophical principle. Among the subjects in the history of philosophy, logic is perhaps the only one that has had no internal history. Aristotle was the pioneer in the subject. He left it so finished that scarcely any changes of consequence could be made in it. The external history of the Aristotelian logic has, however, been notable. A portion of the *Categories* and *De Interpretatione* was most influential in the history of the Middle Ages. The *Logic* had been misunderstood and misapplied by Aristotle's own School, so that when it came into the hands of the Schoolmen it had acquired the reputation of being only an abstract formal logic. As thus interpreted it was used by the Schoolmen and attacked by the philosophers of the Renaissance. Such a view of Aristotle's logic is unjust to the author. He had conceived logic in its wholeness to be the true method to be used in investigating practical scientific problems.

The Sophists had proposed rules of practical value in the study of individual cases; Socrates had tried to fix upon some universal principle as the basis of knowledge; Aristotle made a comprehensive study of the regular forms of thought and the rules that govern the arrangement of these forms in right thinking. In true Platonic fashion he conceived physical events in nature to be due to some universal cause. If, therefore, logical procedure be scientific, it must follow the ways of nature: logic must deduce particular perceptions from some universal idea. The necessary thought-relations in which

the particular stands will then appear. Deduction of the particular from the universal is the true scientific method, used in the explanation of nature-phenomena; so in proof the same deductive reasoning should be used. In scientific study we are trying to show the conceptual necessity of an empirical fact; in proof we are showing the conceptual necessity of the particular term. Whether we are explaining an event or proving a conclusion, we are employing the same logical process. Aristotle thus regarded his logic as the true scientific method for practical service, not as a merely abstract discipline in verbal hair-splitting.

Socrates and Plato confined themselves to the study of the concept or simple term. Aristotle also studied the concept. Indeed, he tried to find out what concepts are fundamental in our thinking, so fundamental that they are our thought reduced to its lowest terms. He names ten of these fundamental concepts and calls them categories. But Aristotle goes farther than Socrates and Plato, and makes his real point of departure the judgment. A single term does not express truth. For truth we must have two terms connected by the verb "is," *i. e.* some *relation* must be shown between them. This is a judgment. Reasoning is still more complex. It is the putting together or showing the relation between two judgments. This process takes the form of the syllogism. The first task of deduction is to present the laws of the syllogism. These will then be the laws of scientific investigation. According to these, particulars can be derived with certainty from universal propositions, provided such universals are established. The syllogism is in the form of two premises and a derived conclusion. It contains three terms. The problem is to infer, from

the relation that one of these terms bears to the two other terms, what the two bear to each other. The principle employed is that of subordination; and the differentiations of the syllogism can be many, depending on the quality and quantity of the premises and the distribution of the middle term. The working of the syllogism in inference has a certainty so great that Aristotle called it apodictic.

But there is another side to the syllogistic besides the deduction of proof or the explanation of empirical fact. This is the establishment of the premises. All deduction presupposes absolute premises. All deduction is grounded on something not deduced; all proof on something not proved; all explanation on something that has not been explained. These presuppositions are universal propositions that can be known only immediately through intuitions. Aristotle is not altogether clear as to what these intuitions are. He names such axioms as the law of contradiction and the law of the excluded middle, and some special propositions which apply only to particular sciences. Since the premises which we actually use are not open to proof, but only strengthened as to the validity of their application, we must use the method of induction in our search for them. We accumulate data from opinions and varied experiences, and then we ascend to a generalization which we take as a premise. The results of induction cannot therefore be in themselves certain. The results are only probable, and can have the character of knowledge only as they explain phenomena. Aristotle means by induction something different from the present use of the term. Induction in modern times means a kind of proof; Aristotle means a method of discovery of

relatively universal terms where the absolutely universal cannot be obtained.

There is an ideal involved in this conception of logic that is interesting. In a perfectly intellectual society there would be a perfect science in which all particular facts could be derived with absolute certainty from premises absolutely known. Life and logic would be identical. We should then be certain not only as to our proof but as to our premises. Logic has sometimes been used very effectively in this way. When the mediæval church conceived its dogmas to be the ultimate premises of truth, it could deduce from them complete rules for living. To the mediæval mind the perfect science was formulated by deducing it from the dogma of the church. The dogmas were the absolute premises. The Renaissance did not doubt the infallibility of the traditional dogmas so much as the logical method, and Aristotle, who had been so long artificially identified with the proof of ecclesiastical dogma, was set aside.

Aristotle, moreover, showed great insight into the present relation of thought and reality. The sequence of facts in our experience, he pointed out, is exactly the reverse of what it is in reality. What is first in reality comes last in our experience, and what is first in our experience is last in reality. To illustrate: the mission of the Athenian State in the eternity of things did not appear until every event in its history had occurred. A perfect being would see the universal ground before the historical particulars derived from it, while we look from the particulars to their universal causes. Logic and metaphysics agree; but they stand in inverted parallelism to historical and psychological processes. Knowledge is a development from the senses

into the Ideas, and yet, on the other hand, Aristotle never fails to remind us that this development is the expression of an idea which has been present from the beginning.

Aristotle's Metaphysics.

1. **Development is Purposeful.** The conception of relation is, of course, quite as fundamental in Aristotle's theory of metaphysics as in his logic. In logic knowledge of the particular is possible through its relationship to the universal; in metaphysics the relationship is the relationship of development — the particular has significance and value through the universal essence that unfolds from within it. If Aristotle shows genius for abstract thinking by becoming the "Father of Logic," he shows equal genius for abstract thinking in his metaphysical conception of development. He believed that metaphysics applies the same conditions to things that logic discovers in thought. But in metaphysics the relationship is not the abstract relationship that Aristotle saw in Plato, but the vital relation of development in the life and change of nature.

We have already stated the fundamental principle in Aristotle's teaching as *an unfolding essence in phenomena*. The unfolding is the relationship of development. Reality does not consist in the particular things of nature, nor in something outside nature, but in this essential linkage of the perceptual and conceptual in nature. As the world is spread out before us, it presents objects that are dynamic, however much they may appear to be static. Everywhere matter is in the process of forming. The world is a forming, not a formed nor a formless world. So, also, if you undertook to describe any individual object in the world, you would have to

define it as a forming or developing thing. A tree, for example, would not be adequately defined or described by enumerating its parts at any one moment ; but you must describe it as a unitary organism developing from a seed. The reality of the world is the development of its meaning in its history ; the same is true of the reality of any individual thing in the world. The world and the things therein have an unfolding essence.

The next point to be observed about Aristotle's conception is that the *relationship of development is between two terms*. The individual must have two aspects : there must be that out of which the development is passing, and that into which it is passing. Aristotle calls these two aspects of development respectively Matter and Form. Every object of nature consists of Form and Matter, and these two terms have passed into history. To Aristotle everything is Matter becoming Form, or, in other words, Form realizing itself in Matter. The tree has its Matter which is becoming Formed, and its Form into which the Matter is growing. The principle which unites the two is development, — the principle of the individual. Matter, then, is the possibility or potentiality of an individual thing — it is the thing given potentially ; Form is its actuality or reality. If you emphasize merely the stages in the development, you are regarding merely the *occurrences* ; if, however, you emphasize the stages of development as aspects of a unity, you see its *essence*.

The relationship of development between two terms thus becomes under Aristotle's hands *the relation of purpose*. Aristotle calls this self-realization of the essence in phenomena by the technical word *entelechy*, i. e. in opposition to the earlier conceptions of nature

Aristotle conceived nature teleologically. Teleology or purpose we found Plato using in his second draft of the Ideas, but more as a postulate than as an efficient means of explanation. Aristotle uses teleology as his positive fundamental principle of nature.

2. Aristotle's Two Different Conceptions of Purpose. Aristotle illustrated his conception of the purposeful relation in nature from two very different types : (1) the development of organisms ; (2) the development that takes place when an artisan moulds plastic material. Manifestly here are two different kinds of teleological activities. In organic growth the Form that realizes itself in Matter is immanent in the organism ; the artist, on the other hand, superimposes the Form upon the plastic material. In the case of organisms Matter and Form are separable only by abstraction, and are only two aspects of a development which is identical from the beginning to the end ; in the case of artistic construction the Matter is first a possibility existing by itself, and the purpose of the artist is later added unto it. In the case of organisms Aristotle speaks of two causes, — the material and the formal ; in the case of artistic construction he employs four causes, — the material, the efficient, the formal, and the final. Aristotle did not expressly formulate these two different conceptions of purpose, but he completely applied them in practice. On the one hand he regarded individual things as self-realizing, and on the other he looked upon them as realized in other things. This seemingly harmless difference is really very fundamental, for it is the difference between Aristotle as he meant to be — Aristotle as the critic of Plato's dualism — and Aristotle who reverts to Plato's teaching. We find therefore two Aris-

totalities; one a dynamic monist, the other a transcendent dualist. We cannot say that Aristotle as he meant to be is the true Aristotle, for he is a dualist in very many important doctrines.

Aristotle's conception of purpose as exemplified by organisms is his original conception, and is what he intended to be the basis of his philosophy. Here the truly real is the individual determined by its own Form. It is the dynamic and not the artistic view of life. Activity is directed to an end not without but *within itself*. The individual is a complete organic unity at rest within itself. The individual is primarily the essence or substance. Of the ten categories which he enumerates, substance from this point of view is to Aristotle the most important. The nine other categories only describe the states or relations of the substance. The essence of the individual is the substance; and Aristotle conceives the substance as the species or universal in the thing. It is pointed out that even here Aristotle is guilty of a dualism in the double meaning in which he uses substance. But the conception of Aristotle here is of an immanent, dynamic reality. He has in mind the self-contained unity of the individual, whether that be a tree, a man, or the universe.

Aristotle's conception of purpose as exemplified by artistic products preponderates over his original conception of purpose. When he regards the individual objects in the world, not as self-contained but as relative to one another, he has a different conception of the world. In this case the individuals are not realities but have reference to a reality transcending them. The world is still a developing world, but the essence that unfolds itself is not *in* phenomena. It is a goal for which

mechanical necessity, it is evident that in his conception of nature the principle of teleology predominates over the mechanical. The highest actuality is God, and he is a final or teleological cause; and all results of value in nature come through final causes. Final causes are primary causes; mechanical causes are secondary causes. There would be no motion whatever in the universe but for the highest final cause, God. Yet God is the unmoved mover, and matter cannot move itself. Motion occurs because matter feels the impulse to form itself like God. How different this Aristotelian conception of nature from our modern scientific conception of an impersonal nature under a mechanical causation that is universal! The teleological conception of nature and natural events was very strongly intrenched in the human mind during the Middle Ages, and was not dislodged easily by modern investigation. Nature was a living thing to Aristotle. It was at once intrinsically spontaneous, and self-determined and uniform. Its spontaneity was not that of capricious chance. Its uniformity was that of purpose and end. On the other hand, the Aristotelian conception of nature is not the same as either the Christian doctrine of created nature or Darwin's theory of evolution. The world of Aristotle had always existed; it is a limited world in space, but not in time. Also the divine reason always existed in it. Yet its evolution is not a progressive climbing sort, like the Darwinian, in which new species evolve. It means only that there is a relationship of rank and value among nature objects. Nature is a unity. Teleological change occurs within it.

Nature is therefore a connected system of living beings in the process of development from Form to Form, approximating the Deity and existing as the

potentiality of the Deity. There is a graded scale of things of relative worth. But the double standard of estimating the worth of nature-objects — that of mechanical necessity and that of teleological cause — makes *two different series*, which find their union only at the end in God. From our foregoing description of the nature of God, it will be seen that he has two essential characteristics: he is Being who ever rests within himself and remains like himself; and he is a pure reason. He therefore combines in himself the two nature series in their most ideal character. *Nature-objects in the series of mechanical necessity* have as their ideal character just that uniformity, regularity, and order that we find in the abiding Being of God. The greater the uniformity, the more nearly like God. *Nature-objects, in the teleological series*, have as their ideal characteristic the reason of God. The more nearly rational such a living being is, the more nearly is it like God. In the one line the series of phenomena ascends from the disorder of the terrestrial universe to the absolute uniformity of the stars, which are close to God. In the other line the series ascends in teleological values from the mechanical and vegetative characteristics of organisms to their rational activity. Both series terminate in God. The stars have rational intelligence and the most uniform motions. Aristotle conceived Physics as the science that includes the first series, and the second series he conceived to be included by Psychology, Ethics, and Politics.

The Mechanical Series, — Aristotle's Theory of Physics. The general astronomical assumptions of the time determined Aristotle's theory of the physical world. He adopted the old Pythagorean conception of

the limited world-all: a hollow sphere made up of concentric crystalline spheres. In opposition to the Pythagoreans, he conceived the earth at the centre. It is spherical and stationary. Around it the crystalline spheres revolve, in which the moon, sun, five planets, and fixed stars are placed. The fixed stars are in the rim of the great sphere, are outside all, and are nearest therefore to God, who animates all. God as it were holds the world-all in the hollow of his hand. He moves the whole, which in turn moves the fifty-five concentric crystal spheres within. The principle of the movement of fixed stars is that of the Deity, while the principle of the other spheres is that of the spirits which reside in them. The movement of the planets have an influence upon terrestrial life. Aristotle made the usual Pythagorean division between the celestial and the terrestrial parts of the world-all, which has had so much influence upon theology. The motion of the world-all is most perfect, being a circle; its form is most perfect, being a sphere. The celestial part of this world-all, which is the region lying near the periphery, is most like God. The motion of this heaven is circular, and it is the place of uniformity, perfectness, and changeableness. The stars do not change nor pass away. They are superhuman beings, who in their regularity are like the blessed gods. The terrestrial part of the world-all below the moon has motions in straight lines. This is the theatre of imperfection and irregularity, of increase and diminution.

There are many interesting discussions by Aristotle upon particular physical matters, such as space, time, the elements. His conception of motion shows how the series of uniform nature-motions lead up to the second

series of teleological values. In nature there are three kinds of motion : change of place (mechanical) ; change in quality (chemical) ; change in substance (organic). While change of place is the lowest kind of motion, it is necessary to chemical and organic changes. Yet Aristotle refuses to allow that qualitative changes can be reduced to quantitative changes, but maintains that quality is self-subsistent. Organic change, or change in substance, on the contrary, has a higher Form of reality than the lower changes. This stand taken by Aristotle, in refusing to reduce qualitative to quantitative determinations, shows how comprehensive and sane a scientist he was. It introduces us to a psychology and an ethics that are intimately linked to physics, and at the same time have realms of their own. Let us now turn to the series of qualitative nature changes, or to psychology, ethics, and politics.

The Teleological Series : The Qualitative Changes of Phenomena.

1. **The Psychology of Aristotle.** As the first experimental psychologist, Aristotle intimately connected his studies in psychology with his studies in biology and medicine. Man is a part of the world of nature, and psychology is in part a comparative study. As we pass upward from the mechanical changes, we find chemical changes of quality, and then changes of organic life. Studying the organic realm, we find organism to consist of souls of relative ranking. There are vegetative souls, sensitive souls, and rational souls. Plants have vegetative souls with the powers of assimilation and propagation ; besides vegetative souls animals have sensitive souls, with the powers of appetite and locomotion ; man possesses, besides both these souls, the ra-

tional soul. Here is a series of teleological relationships, where the purpose of the organism is explained only by the activity of its soul. The soul builds up its body as a system of organs, and as an organology the theory of Aristotle has great significance. Nature strives ever upward, even in the inorganic processes, through an unbroken series of creations to its highest Form in man. Each step in the upward progress is the realization of an entelechy, or purpose, and constitutes for the moment the goal of the impulse to strive. The whole world is striving to realize the perfect Form. The lower ends, the mechanical and vegetable and appetitive Forms, are not lost but are utilized in the process; for they are the Matter upon which the Forms higher than themselves are built. Every member is both Form and Matter in the whole series.

The psychology has therefore two parts: (1) the general theory of animal souls, which possesses rich suggestions; (2) the doctrine of the Nous as the distinctive characteristic of man. These are the empirical and speculative sides to Aristotle's psychology.

Man is an epitome of all the changes in the universe. He has vegetative, appetitive, and rational souls. Yet there is unity in man, for the lower souls are subservient to the reason and exist for it. The appetitive soul is the Form of the vegetative soul, the Matter of the Rational soul, etc. Accordingly, Aristotle defines the soul as the entelechy of the body, because bodily human activity is enlisted in the service of the reason. Reality in man is an unfolding purpose, just as it is in nature. The real self is this unfolding rational self, whose possibility is the body; whose actuality is pure reason. The mind is actualized body, the body is potential mind.

Aristotle made many contributions to psychology about the origin and value of the several sensations, about the feelings of pleasure and pain and the desires. He shows his remarkable genius in pointing to the necessity of a unity of consciousness, which he calls the "common-sensibility." His discussion of the *Nous*, or reason, is of importance for two reasons: first, because it leads to and illuminates his ethical theory; and second, because it is an example of his deviation from his original conceptual position. The reason, according to his first intention, is the unfolding purpose of the body, — it is the immanent essence of the body. As Aristotle finally left his discussion of the Reason, it is as transcendent as his God, or as any Idea of Plato. The *Nous*, or Reason, is not a Form of the body, but a Form of the soul. It is purely immaterial, simple, unchangeable, and incapable of suffering. It does not originate with the body as a function. It comes from without as a godlike activity, and will remain after the body passes away. Its fundamental activity is thought, and its object is those ultimate principles of Being which are the ultimate premises of logical thinking.

Aristotle's theory of the Reason is considerably complicated by his division of it into two parts, — the active and the passive Reason. Within itself, the Reason is to be distinguished as Form and Matter. The passive Reason is the Matter for the active Reason, and the active Reason is the Form for the passive Reason. By the passive Reason Aristotle evidently means the individual and developing man. The active Reason can alone persist after death, but whether absorbed in the Deity or not he does not say. Immortality to

Aristotle in any case is not a perpetuation of the individuality.

2. **The Ethics of Aristotle.** We have seen that nature phenomena are of two classes, — those mechanically related, and those related as to their purposes or ends. Physics is concerned with the first class; psychology is concerned with the second class. But in a special way are ethics and politics sciences of the phenomena of the second class — sciences of teleologically related phenomena. Moral life is an unfolding essence having a possibility and an actuality. The Possibility or Matter of the ethical life is our feelings, temperament, disposition, impulses, and perceptions — just those psychological factors that make up the endowment of the human personality. The ultimate Form or actuality of the ethical life is the reason. The reason as the goal of the moral being determines its character. Man is distinctly a rational being. Virtue is the process of the ethical life from its possibilities to its actuality; it is the essence of the ethical life. Virtue is that continuous state of mind that makes rational activity possible. So much for the factors that make the ethical situation; the natural endowments of the mind are its material, the reason is its goal, while the means of developing the natural endowments into rational activity is virtue.

The situation would be simple enough for us as moral beings if, in our striving, each had only himself and his own development to consider. But man lives in a world of men, and his highest good is determined somewhat by his environment, — by riches, bodily comforts, success. These are not essentials but only accessories, and the lack of them is only a limitation. The essential factor is the rational activity. Nevertheless,

these modify the definition of what we mean when we define rational activity as the highest Good or Form of the moral life. For the question which Aristotle proposes in his notable treatise of Ethics is, What is the end or supreme good of human action? The highest Good for a man among men is Happiness, or well-being; that includes not only rational activity, but also the pleasures that accrue to such activity. But what is happiness? It is an end in itself, and not the means to anything else; it is the result of functioning, a state of conscious vitality; it accords with the law of excellence of that functioning. Perfect happiness is, therefore, partly the result of one's own individual effort, partly dependent on circumstance. While virtue is the measure of the worth of different pleasures, yet pleasures do not always attend our acts in our present society. The greatest Good is happiness, but since this depends in part on external goods, the goal to which we should directly attend — the factor within our control — is rational activity.

There are two classes of virtues based on the two kinds of rational life, — the practical virtues and the dianoetic virtues. The practical virtues are those of conduct based upon the rational control of the impulses; the dianoetic virtues are those of intellectual activity based upon the development of the perceptions. The perfect moral development of human nature will consist (1) in the perfect development and true regulation of the feelings and desires in moral excellence; and (2) a perfect development of the intellectual faculties for rational culture.

(a) The Practical Virtues. The essential thing for the individual to regard, therefore, is the training of

his will by right rational insight. He should seek to direct his impulses by reason, and not only once but so many times that the impulses will become rational habits. This is what Aristotle means by training in virtue. It is continuity in rational activity ; it is a permanent development toward reason ; it is the unfolding of the real Self. Aristotle had regard for the facts of life when he differed from Socrates, who said that virtue is knowledge. Aristotle did not conceive the will as psychological power independent of the reason. He doubted if rational insight was more powerful than the impulses, when the test comes. Experience often shows that although we may know what is right, an impulse will often drive us into habits not guided by reason. This presupposes for Aristotle a will that is free to choose among the desires that one which will lead him along the path that reason points out.

It is impossible to formulate a rule for the acquirement of the particular virtues. Each virtue must be treated by itself. The only principle for guidance is that the reason should always seek the mean between two extremes. Thus courage is the mean between cowardice and rashness ; temperance between intemperance and insensibility ; friendliness between obsequiousness and brusqueness, etc. Moderation is the watchword in the cultivation of the practical virtues.

(b) The Dianoetic Virtues are the means toward the attainment of pure rationality for one's self. The dianoetic virtues are higher than the practical. They unfold the pure formal activity of the Nous, and give the most noble and perfect pleasure. Man finds through them his possible participation in the divine happiness. These intellectual virtues may be either theoretical or

practical insight; in the latter case, Aristotle means knowledge of the right in art, and knowledge of justice. But the purest is Wisdom (*θεωρία*), which is knowledge for its own sake. It is the knowledge that God has of himself. Man may approximate this.

In Aristotle's ethical theory there appear three features that are distinctly Greek. (1) The leading question that he asks at the beginning of the *Ethics*, What is the end or Supreme Good of human action? is Greek. The modern writer asks, What is the nature of duty? (2) The emphasis on the "mean" is Greek. The idea of the "mean" was the fundamental principle in Greek life, and appeared in such literature as Gnostic poetry and Plato. (3) The subordination of individual ethical conduct to the conception of the state is Greek. Aristotle says that politics will have to settle the question of the Supreme Good, for the Good of the state and that of the individual are identical.

The Political Philosophy of Aristotle. In the present real world rational activity rather than happiness is the chief concern of man. Happiness is, however, his highest Good, which he can attain if his environment favors him. The political environment is a moral factor to be considered. The state should be the fulfillment of the morals of the individual, and should also be his ethical trainer. That State is fulfilling its own possibilities most completely which brings to the full its natural endowments. Every Constitution is right that has the weal of the people at heart, so that we find Aristotle holding this extraordinarily liberal position, that the external structure of the State is not so much of consequence as that the State should be the educator of its people and the actualization of its own in-

herent possibilities. Aristotle did not construct an ideal state, like Plato. He merely pointed out some essentials necessary to the well-being of a state, like education and providence for the future life of the State. Although the State is the offspring of necessity, and arises out of the needs of utility, it is the Form or actuality of the inner self-realization of man from his savagery. Race, blood, soil, and geographical position are all the Matter of the State ; the rational perfection of these is the Form ; the civic virtue is the permanent means of the social development. The individual in Aristotle's State is subordinated, but not absorbed, in the State. He can participate in the intellectual virtues. Since his own enjoyment in wisdom approximates God's, he himself has distinction. Aristotle was a staunch supporter of marriage and the family relations. No philosopher in ancient times so elevated the position of woman. He reluctantly consented to the institution of slavery because it seemed to him a necessity.

CHAPTER IX

THE HELLENIC-ROMAN PERIOD (322 B. C.—476 A. D.)

Its Time Length.

Greek Period, 300 years.

Hellenic-Roman Period, 800 years.

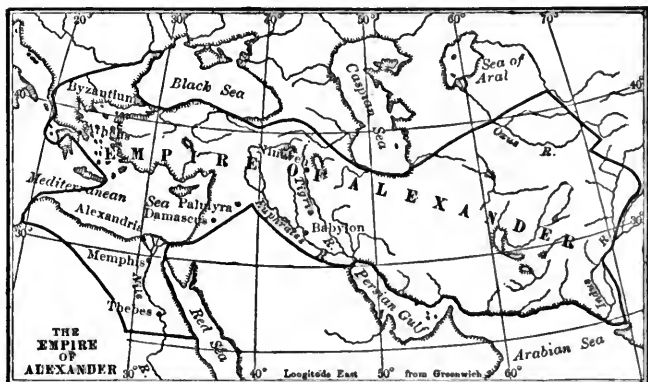
Middle Ages, 1000 years.

Modern Period, 450 years.

We ought to appreciate at the beginning the enormous time length of this period. It seems long since modern thought began, but it was only about 450 years ago. The Hellenic-Roman Period was 800 years long, or nearly twice as long as modern times. It is, furthermore, two and a half times as long as the period which we have just been discussing, — the pure Greek period. Now the Hellenic-Roman Period and the Middle Ages together form the epoch of human history that is relatively uncreative. This is an extent of 1800 years, a long interval when compared with the 750 years of creative history, which represents the combined length of the pure Greek Period and modern times. In European history the periods of productive thought have been less than half as long as those of the unproductive. Yet we must not be misled by such statistics. History is an organic growth. Its seedtime and growth are long; its harvest is short.

The Fall of the Greek Nation and the Persistence of its Civilization. The 800 years after the death of Aristotle are named the Hellenic-Roman Period, because Greek civilization burst its own national bound-

aries and became a part of Roman civilization. The Greek nation died; its culture remained. It is no longer pure Greek, but Greek in the environment of the Roman world—it becomes Hellenism. With the death of Alexander in 323 B. C. the motherland of Greece became a prey to revolutions for 200 years. It was often the battleground of foreigners and the object of their contentions. Its government and population sank into hopeless decay. It was incorporated into the



THE EMPIRE OF ALEXANDER

(Showing the spread of Hellenism eastward, beginning 334 B. C. with Alexander's Campaign)

Roman empire in 146 B. C. and shared in the depressing times of the Civil Wars of the first century B. C. By becoming a part of Rome Greece lost its uniqueness but the world gained its culture as a common heritage. Its autonomy was forever gone, but its people became the teachers of mankind. In political power Greece reached its height with Alexander, in creative thought with Aristotle; then by its own momentum its civilization persisted as a missionary force to the whole world.

The overflow of Greek civilization was first eastward, to the nations of Asia. Alexander, with his military and administrative genius, had only made a preliminary conquest of these Oriental peoples. The conquest became permanent through Greek art, learning, and institutions. In the century after Alexander the habits and customs of the East had been Hellenized. Greek schools, theatres, and baths were to be found in almost every city of the East. In the East and Egypt an inexhaustible field was opened for the founding of new centres of culture. In the kingdoms partitioned off from the old Alexandrian domain, the kings were Greek, spoke Greek, adored Greek gods, and preserved Greek fashions. Amid Asiatics they sought to maintain Greek courts, have Greek administrative officers, and be surrounded with Greek scholars. Greek colonists, soldiers, and merchants were attracted to these kingdoms in such numbers that the natives adopted the costumes, religions, manners, and even the language of the Greeks. The Orient ceased to be Asiatic and became Hellenic. The Romans found there in the first century B. C. peoples like the Greeks who spoke Greek.

Greek civilization began to overflow upon the western world when, in the second century, Greece with all the other countries upon the Mediterranean was absorbed by Rome. The conquest of Greece by Rome in 146 B. C. gave currency to Greek art, letters, and morals in Roman life. That Greek civilization was not lost in this great amalgamation shows how deep and fundamental it was. The secondary nations disappeared and none remained to compete with the Greek and Latin. The result was the superimposition of Greek

culture upon Roman society. At the time of the conquest of Greece, Greek scholars went to Rome in great numbers and opened schools of eloquence and literature. Later the Roman youths went to Athens to study. Art and science were gradually introduced into Rome. The old Roman house got a Greek addition. Statues and paintings were transported from Greece to Rome. Greek artists were commissioned. By 100 B. C. the great Romans were living in Greek or Oriental style. The coarsest Greeks, too, came into Italy and mingled with the Roman proletariat. Thus, with the complete Latinizing of the peninsula of Italy in the second century, an increasing Hellenism went hand in hand.

But the two civilizations never completely united. Roman adoption of Greek culture was never more than a veneer. Greek art and learning were rarely studied by the Roman except as a parade and luxury. As time went on the Roman resorted less to the classic and more to the frivolous modern products of the Greeks. For it must be remembered that when Greece was conquered by Rome, the Romans were still only peasants, soldiers, and merchants, without science, art, or philosophy. Before 150 B. C. the Roman children were taught nothing higher than reading, writing, etc. But the Roman found a culture in Greece that he liked and imitated. He kept his costume, language, and political laws, but he adopted Greek letters, art, morals, and incorporated many elements of the Greek religion into his own.

Two results came from this superimposition of Greek culture upon Roman society. On the one hand the Greek sought to create a philosophy which would make him a citizen of the world, since it was no longer an

honor to be a citizen of a Greek city. On the other hand, to the Roman there came a mixed good. There was a gain to Roman literature and perhaps to jurisprudence, but a fatal loss to Roman faith and morals. On the whole Roman vulgarity was only concealed by Greek culture, except in such spirits as Scipio, Paulus, and the Gracchi, in whom culture was genuine. The Roman felt the need of rich intellectual life, and he sought it in the rich treasures and the filth of later Greek culture. The Greek culture that he found was no longer pure Greek, but Hellenism, sometimes tinged with Orientalism. It acted as a poison on the Roman and often was bitterly opposed.

The Two Parts of the Hellenic-Roman Period. We must not forget that, excepting the first 175 years of this period, Rome is the background upon which all philosophical movements of the time are to be traced. Upon this background two general movements are prominent, which divide the period into two parts: (1) the Ethical Period, and (2) the Religious Period.

1. The Ethical Period, 322 B. C.—1 A. D., had its origin in the Greek culture that was superimposed upon Roman civilization. This epoch is notable for the rise and controversies of the four celebrated philosophical Schools of Athens; the introduction of the teaching of these Schools into Roman society; and the final merging and reconciliation of these Schools in Eclecticism and Skepticism.

2. The Religious Period, 100 B. C.—476 A. D., arose out of the Oriental religions that swept into Rome before the beginning of this era. They were modified by their Roman environment, and intellectualized and systematized by Hellenic culture. Neo-Pythagore-

anism, the Alexandrian-Judaic theosophies in the first part, Christianity and neo-Platonism in the second part of this period, are the most important philosophical results.

Note three things. (1) The spiritual life of Rome during these 800 years has its origin in imported foreign movements. The source of the ethical movement is Greek, that of the religious movement is Oriental. (2) The two movements overlap. Indeed, each from its beginning to its end covers about 600 years. More precisely the ethical movement did not disappear until about 200 A. D. ; the religious movement began about 200 B. C. Ethical considerations dominate the first and religious impulses the second period. (3) The century and a half from 150 B. C. to 1 A. D. is a period of transition. It is the time when the emphasis changes from ethics to religion. It is a period of unsettled conditions both politically and intellectually. Politically it is the time of the Civil wars and the formation of the empire. Intellectually it is the time of Eclecticism and Skepticism.

The Undercurrent of Skepticism in the Hellenic-Roman Period. If we go beneath the surface of the chronological divisions of this period, which have been given above, we shall find their significance in the undercurrent of Skepticism, which runs from the beginning to the end of the period, and includes both its ethical and religious phases. "Skepticism" is a word with a history of its own, but, as philosophically used, it means the disbelief in the possibility of true knowledge. Skepticism was the fundamental frame of mind that gradually grew to conscious expression in the entire ancient world, although it was entirely at variance

with the spirit of the Greek culture that had been superimposed upon that world. As an undercurrent — a widespread feeling — Skepticism pervaded the whole period, while at different times and places it appeared distinctly on the surface. These were 800 years of lack of confidence in the power of the human reason, but the really negative character of the time is often concealed by dogmatic teachings of the philosophical Schools. Dogmatic Skepticism does not appear except with reference to the positive teachings of the Schools, and then it appears conspicuously. The successive stages of Skepticism can have their clear outline, therefore, only after the positive philosophical teachings, contemporary with it and opposed by it, have been understood. This is the reason for treating the Skeptics after and not before the Schools. The reader will, however, lose the whole meaning of the Hellenic-Roman Period if he does not see that it is fundamentally Skeptical; that in the Ethical Division the Schools furnished the occasion of its appearance, and that in the Religious Division religious faith rose because Skepticism had taken possession of the field of knowledge. The ethical Schools stood as the last representatives of the old Greek rationalism of the Systematic Period, but even they yielded to the Skeptical spirit of the time. Stoicism, Epicureanism, and Skepticism seek the same end, — the withdrawal of the individual from the world and his exaltation above his environment. All three valued science only so far as it would help ethical conduct. Skepticism alone was avowedly antagonistic to intellectual ideals. The strength of Skepticism appears more evident when we look at its growth during this period. At the end of the Ethical Period the Schools weakened

and we find a century and a half (150 B. C. – 1 A. D.) of Skepticism and Eclecticism. There then followed at the beginning of this era the Religious Period. Man then turned to religion because he was profoundly skeptical of the trustworthiness of the reason — he felt that it was so untrustworthy as to be unable to furnish him even a true theory of moral conduct.

The Skeptical undercurrent of the Hellenic-Roman Period was the concentration of all the negative results of the Greek Sophists. It therefore had more than one point of departure, — the philosophies of Protagoras, of the Megarian, Cynic, and Cyrenaic Schools. This Sophistic undercurrent fed popular thought during the days of Plato and Aristotle. It took its formal beginning contemporary with the rise of the Stoic and Epicurean Schools; and in Athens, Alexandria, and Rome there rose to the surface the problem of the possibility of human knowledge. Formally it modified its sweeping negations, when it came in contact with the pressing needs of morality and of spiritual retirement, but it was ever present as the significant attitude of the time. While the nature of the Skeptical teaching stood in the way of its formation into a School, the doctrine itself, nevertheless, developed into a system and had its historical growth and culmination. Weber points out that the first appearance of Skepticism marks in Greece the inauguration of the age of reason and its reappearance marks the decline of the age of reason.

The Fundamental Problem of the Hellenic-Roman Period. The fundamental attitude of this period being Skepticism, the fundamental problem presented to it was therefore a practical one. While at heart the age doubted the validity of the human reason, it was con-

sciously engaged in solving a very practical problem. The period had an external side that was positive. No age can be merely skeptical, especially for so long a time as 800 years. To doubt the power of the human reason is usually the occasion of shunting human energies along other lines. The form of the practical problem of this time was, *What is the highest wisdom for practical life?* This is consonant with the skeptical attitude of the Greek as indicated by these two facts: (1) he had no longer an interest in speculation except as it afforded a basis for practical wisdom, and (2) he had no longer an interest in special sciences except as they yielded practical results. To be sure, it will be found that theories took to themselves airs of great importance during this period and that empirical sciences made rapid advances; but it will also be found that they were always in the service of practical living. The Wise Man of this age is he who has a scientific doctrine of the purposes and ends of human life.

For with his entrance into world-wide relations in the Ethical Period the Athenian found himself confronted with a very different situation from that which had engaged him during the age of Pericles. His national existence had gone and could no longer arouse his devotion, and with it his *ideal* of a national life had crumbled to pieces. His epic polytheism had become a dim thing of the distant past, and there was no longer any external Greek institution to awaken his slumbering energies. He might, of course, go into retirement and engage in speculative inquiry, except that this was an age of pressing need. He was forced to be awake and to adjust himself as an individual to the many other peoples mixing and mingling in one common civ-

ilization. His relations were enlarged, but his interests were circumscribed. His philosophy was focused to one fundamental problem, *What, after all, is the object of human life, and what can give happiness to the individual amid the turmoil of the time?* Philosophic studies were narrowed to ethics, logic, and physics in their practical bearing. How much narrower, then, the scope of the intellectual life of this time than that of those men of retired leisure, Plato and Aristotle!

Nor is the fundamental problem different when in the second part of this period we enter the great sweep of the religious current. The rise of religious ideals and the shift from ethics to religion was only the presentation of the practical problem of living with a different emphasis. Man was now in the dazzling glory of the empire, but that empire was unable to compensate the individual for the loss of his political importance. Rome had given to its conquered peoples an organized legal unity, but no spiritual ideal. It had none to offer. The individual was the least important factor in the organization. The present life offered little hope to the individual, except in the light of a future life. Practical wisdom thus became that which took account of the rewards and punishments that would come in the life beyond.

The Hellenic-Roman Period is kaleidoscopic and bewildering in its shiftings; but amid them all is this one conscious problem: "*Show us the man who is sure of his happiness, whatever the accidents of the world may bring to him.*"

The Centres of Hellenism.

1. Athens. With the overflow of Hellenism to the east and west the active history of Athens had ceased,

but she became venerated for what she had been. Greece became hallowed and Athens became the shrine of Greece in the imaginations of men. Although the city was brutally ravished, she exercised a charm over the human mind for eight hundred years after Alexander. Athens remained the intellectual centre through the entire period. It became the conservative university town, where philosophy and rhetoric were taught. It is remarkable how many Oriental philosophers came to Athens to teach, how many youths from the whole world came to be taught. The rhetorical schools, such as that of Isocrates, did much toward making Athens the centre of culture, and they offered for many years the highest practical training to Greek, Roman, and Oriental. Besides the rhetorical were the philosophical or dialectical schools, which debated privately questions of speculative metaphysics. These did not offer public training, but groups of students were taught in the grounds attached to gymnasia. Four principal philosophical schools were thus formed, — the Academy of Plato, the Lyceum of Aristotle, the Porch of the Stoics, and the Gardens of Epicurus. In the first two we have had especial interest in the previous period. All four, and especially the Stoic and Epicurean schools, will engage our attention in this period. They are known in history as “the Schools.” (See map for their location in Athens.) There were many minor schools in Athens which later became religious cults. These Schools lost their original interest in speculative inquiry, and in this period devoted themselves to the exposition of the teaching of their respective founders on ethical lines. The University of Athens was built upon the four Schools. Its chairs were endowed by Hadrian and the Antonines in the second century A. D.

It grew to have an elaborate organization. It was abolished by Justinian in 529 A. D.

2. **Alexandria.** There were many other centres of Hellenism and of other learning at this time, — Rhodes, Antioch, Alexandria, Pergamus, Tarsus, — but none of these could be said to rival Athens in the veneration of men. Some were much more active and creative than Athens. Alexandria surpassed Athens and all other cities as the centre of the natural sciences in the Ethical Period and of religions in the Religious Period. Here, too, rather than at Athens, were to be found the real interpreters of Plato and Aristotle. Nothing in ancient times can be compared to the wonders of the museum of Alexandria, which was its university. Scholars of every nation were entertained here at the public expense. A vast botanical garden, a zoölogical collection, an anatomical museum, an astronomical observatory, a library of seven hundred thousand volumes were here. Here Euclid (290 B. C.) wrote his geometry, Eratosthenes pursued his astronomical, geographical, and historical labors, Apollonius wrote his treatise on conic sections; and here were made the observations that led to the discovery of the precession of the equinoxes. Here Ptolemy and his school formulated the system of astronomy which was authoritative for fifteen hundred years. Here the Christian theologians were educated, and from this city neo-Platonism sprang. Literature and art, history, philology and criticism flourished. The Hebrew Bible was translated into Greek. All religions were welcomed. Buddhist, Jew, Greek, and Egyptian mingled, and comparative theology rose to be a science.

General Characteristics of the Ethical Period (322 B. C.—1 A. D.) — On the death of Aristotle the hitherto

compact body of Greek thought disintegrated into its several elements. Theoretical and practical knowledge, which had been so successfully fused in the great systems of Democritus, Plato, and Aristotle, became separated. The whole tendency of the time was toward segregation.

1. **The Abandonment of Metaphysical Speculation.** The theoretical side of philosophy, which had been so successfully completed by the great Greek masters, now became subordinated and almost completely lost to view. *Metaphysical speculation was neglected* except as it threw light on the practical sciences — on ethics and the natural sciences. Knowledge was no longer loved for its own sake.

2. **The Growth of Science.** Since theory was regarded as completed, *attention was naturally turned upon the details of erudition and the specializing of science.* The natural sciences survived the systems of philosophy because of their usefulness. There was great interest in investigations in mathematics, natural science, grammar, philology, literary history and general history — and all with very rich results. It was the time of commentaries, criticism, collaboration of the work of the past and completion of the special work begun by the past. By far the greater number of the so-called “philosophers” of this time are connected with special science and literature, and not with metaphysics.

It was in the Greek Islands and Egypt (Alexandria) that this advance was made. Nevertheless, it must be said that the advance in science was a good deal restricted. The empirical sciences are dependent on observation and experiment, and these opportunities were wanting at this time. Good progress was, however, made

in mathematics and the sciences dependent on reasoning. Reasoning alone is incapable of advancing a science like physics, for physics depends on investigation. But even the prevalent skepticism of the time could not doubt the truths of mathematics.

3. **Ethics became the Central Interest.** For the first time in the history of European thought ethics was no longer a part of politics. In the time of the autonomous Greek states ethics and politics were two sides of the same question both in theory and practice. Ethics and politics were not disjoined even by the Sophists, who nevertheless paved the way for the divorce of the two. Now for the first time ethical questions have become such that the individual must disregard the iron-bound political situation and answer them entirely with reference to himself. The decadent Greek state was no longer a moral entity in the eyes of the people, nor could the concentration of government in Rome raise the state to moral dignity. Moreover, life had become cosmopolitan. The nations were commingling. Ethics must meet the needs of men as human beings, and not as Athenians, Spartans, or Romans. Vices had become cosmopolitan and virtues must needs be cosmopolitan also. But cosmopolitanism is in the last analysis only individualism. The man who conceives his duty so large that it embraces the whole world is usually cold to any special interests except his own. The Roman dictators and afterwards the emperor were the personification of this cosmopolitan individualism which the subjects imitated so far as they could.

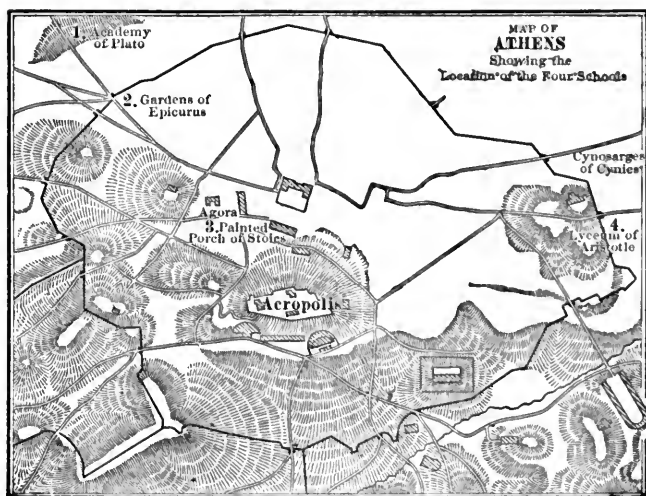
Thus the public life was in danger of being swamped by private interests and mere enjoyment, by gain and the struggle for existence. The old belief in the gods,

the vigorous political activity for great ends, the pleasure in free scientific inquiry had disappeared. The only refuge for the reflective mind was within itself and the study of its own moral problems. Yet for this a definite science of ethics was necessary, if the individual was to be systematically independent of external things. Plato and Aristotle had prepared the way for such retirement, and the tendency toward ethical separation from the world of political events was an aspect of the cosmopolitanism of the time. Ethical individuality and cosmopolitanism go together. The development of the inner life belongs to those individuals who dwell together in spiritual community. The same cosmopolitanism was sought by the skeptics of the period through the abandonment of all knowledge.

The Schools. The beginning of the Ethical Period is marked by the rise of the Schools into prominence, the end of that period by the fusion of the Schools with one another through either eclecticism or skepticism. At the beginning of the period each School had its distinctive doctrine and was in open controversy with the others; at the end their doctrines were much alike. The Epicurean School was an exception, for it always remained isolated from the other Schools. While each School had a host of notable representatives, it would be difficult to find a creative thinker among them.

We have already given the names of the four Schools: the Stoic or the Porch, the Epicurean or the Gardens, the Aristotelian (Peripatetic) or the Lyceum, the Platonic or the Academy. The Stoic and Epicurean are called the New Schools in contrast with the Lyceum and the Academy, which are called the Old Schools. The New Schools were of Asiatic rather than Greek origin,

and the Old Schools departed very much from the teaching of their founders; so that we find a very different kind of philosophy taught in all four Schools from that taught by the great Greek Systematizers. All the Schools were Sophistic rather than Socratic, and may be characterized as the revival of Greek Sophistry. Besides these Schools there was the group of Skeptics, which cannot be properly



MAP OF ATHENS, SHOWING THE LOCATION OF THE FOUR SCHOOLS

(The Academy was three quarters of a mile from the city, the Lyceum just outside the city, while the Porch was a colonnade on the market place (Agora). The location of the Gardens is not precisely known, but it was on the road to the Academy, just inside the walls.)

called a School, for from the nature of its doctrine it could not form an organization. In influence upon the period, the Stoics, Epicureans, and Skeptics are the most important. They eclipsed the Academy and Lyceum because with partisan clearness they could formulate the attitude of the age. The Stoic School made the most

important contribution to succeeding history. The Epicurean School had the most numerous following. Although the four Schools were not endowed until the Empire, their life was most vigorous before the Empire during the Ethical Period. Succession in leadership of the Schools cannot be completely traced—even that of the Academy shows great gaps. All record of leadership in the Aristotelian, Stoic, and Epicurean Schools stops at the close of this period.

The Old Schools — The Academy and the Lyceum. The Academy and Lyceum have a history which in these respects is the same: (1) both abandoned the ideal of an ethical society and turned to that of individual happiness; (2) both deviated to Skepticism; (3) both afterward had a reaction from Skepticism; (4) both developed the Sophistic teaching rather than that of their founders; (5) both were in common opposition to the New Schools.

1. The Academy. There were three Academies after Plato,—called three, because of the difference in their doctrines. Perhaps it is better to say that there were three successive epochs of the Academy.

(a) *The Older Academy*, lasting about seventy years, from 347 B. C. to 280 B. C. The successive leaders of this were Speusippus, the nephew of Plato (d. 339 B. C.), Heracleides of Pontus, Xenocrates (d. 314 B. C.), Polemo, and Crates. This Academy emphasized at first the tendency begun by Plato in the *Laws* toward the Pythagorean numbers, and later yielded to the contemporary interest in morals.

(b) *The Middle Academy*, lasting about one hundred and fifty years, from 280 B. C. to 129 B. C. Of this epoch Arcesilaus and Carneades were the most

prominent leaders. This Academy was a form of Skepticism.

(c) *The New Academy*, lasting three hundred years, from 120 B. C. to 200 A. D. Among its leaders were Philo of Larissa, who was at Rome in 87 B. C., and Antiochus of Ascalon, who had Cicero as a pupil in Athens in 79 and 78 B. C. This epoch of the Academy represented a return to the dogmatism of Plato, but it shows the contemporary eclectic tendency by its including elements of Stoic and neo-Platonic teachings.

On the whole, the several epochs of the Academy failed to represent Plato's theory of the Ideas. The Academy was at first a School of practical ethics, then a Skepticism, then an eclecticism. It was related to Plato as the lesser-Socratic schools were to Socrates. The true developer of Plato was Aristotle and not the Academies.

2. *The Lyceum.* From the death of Aristotle to 200 A. D. the Lyceum was represented by individuals. The pupils of Aristotle were distinguished from the master himself in being scientific specialists. Theophrastus (370-287 B. C.), who followed Aristotle as leader of the Lyceum, was the most complete representative of Aristotle, and an attempt to drive out the Schools in Athens in 306 B. C. failed solely by reason of the respect in which he was held. His significance lay in natural science, and his two preserved botanical works are of great importance. Eudemus of Rhodes studied history, mathematics, and astronomy. Aristoxenes studied music, ethics, psychology, and history. Dicæarchus showed the first yielding to the contemporary ethical interest by writing history on its practi-

cal side. Science was continued by the Aristotelians in Sicily, Alexandria, and the Mediterranean islands. At Athens the School was most interested in logic, dialectics, and eristics.

The history of the Lyceum was similar to that of the Academy. At first it was centred in Theophrastus, the brilliant disciple of the founder, — an administrator who knew how to give an eminent position to the Lyceum in the intellectual life of Athens. This was followed by the naturalism and pantheism of Strato. The following generations of scholarchs were absorbed in empirical investigations. Then, as in the Academy, came the reaction back to the original purpose of the founder of the Lyceum. This occurred under Andronicus (about 70 B. C.), the eleventh head of the School, and under him the original teachings of Aristotle were reproduced and defended. This went on for several centuries, until the School was merged in neo-Platonism.

The New Schools — The Epicureans and the Stoics. The Stoics, Epicureans, and Skeptics represent the dogmatic side of this period more truly than the Platonists and Aristotelians, for they give a radical expression to its social aspects. The Epicureans had less philosophical originality; but their doctrine had been born mature in their founder, and had in consequence a unity and compactness. Stoicism, on the other hand, was an eclecticism composed of the successive philosophizings of its champions through many centuries. Stoicism was represented by many independent and notable thinkers, while Epicureanism had only one original thinker, — its founder, Epicurus. Stoicism developed by changing its essentials, while Epicureanism

could change only in its unessentials. Stoicism may be said to have been the characteristic philosophy of this period, from the fact that it was created and developed in Athens on the principles of Attic philosophy by men who had originated in the mixed races of the East, and by the fact that it was easily accepted and developed by the Romans. Consistent with the spirit of the Hellenic-Roman Period, it was by nature an eclecticism that became more eclectic; and as time went on its teaching approached that of the Academy and Lyceum (second century B. C.). Epicureanism, however, always remained Epicureanism. Both Stoicism and Epicureanism were centred at Athens. Epicurus opened his School in the Gardens in 307 B. C., and Zeno began his lectures in the Porch in 294 B. C. Both schools were introduced into Rome in the middle of the second century B. C., or just before the end of the Ethical Period.

Epicureanism in Rome could easily be perverted into an excuse for the luxurious tendencies of the time, and since it advocated absolute government it voiced the feeling of the new Empire — of the Emperor and the people. As a philosophy it was opportune and popular and at the same time easily misunderstood. It made no demands upon its disciples. On the other hand, Stoicism was a discipline and demanded intellectual acumen. Its insensibility to art and culture was an insuperable obstacle to its progress in Greece, but on this account it found congenial soil in Roman society. It made rapid progress among the noble families, and was especially identified with those patrician reactionaries who stood for the old régime of the Republic.

We are not surprised to find that the Stoics and

Epicureans were violently opposed to each other. They were the New Schools and contesting the same ground for favor. They had the same aim and, with so much in common, their differences were naturally accentuated. In an age which Adam Smith has likened to the Thirty Years' War in Germany, they sought as rivals to offer as an ideal the individual independent of his surroundings. The Stoic presented one means of attaining this ideal and the Epicurean another. Both tried to substitute a philosophic creed for the old religion. And the crowds that still went to the Academy and Lyceum, and were taught the old dogmatism, must have looked askance at these new dogmatic Schools. Those crowds had become second-rate men. The New Schools had at first fewer numbers, but deeper thinkers. The Greek pupils in the New Schools listened to foreigners teaching strange creeds in strange tongues. But these new rivals made their way. Not only at Athens, but at Corinth, Elis, Colophon, and Heraclea in Pontus the elegant Platonic style was being superseded by the crude aphorisms of Epicurus and the clumsy arguments of Zeno.

It will be asked, How far did these doctrines during these eight hundred years permeate the people? Did the New Schools reach the rank and file of the people to the same degree that the Sophistic teachings reached the Greeks? Are we to suppose that Stoicism and Epicureanism were common and popular philosophies? By no means. These philosophies reached the people of the Roman world no farther than Greek culture permeated Roman society. Stoicism was consciously taken up by the large patrician class. The patricians were the cultivated Romans; and Stoicism has so much in it like the Roman *gravitas* that it formulated for the patricians

their attitude in this hopeless time. Epicureanism, on the other hand, in its pure form as Epicurus taught it, or later as Lucretius poetically expressed it, could find less favor in Rome. But Epicureanism was easily perverted, and no doubt the educated voluptuaries of Rome would find in the vitiated doctrine a support and excuse for their excesses.

A Summary of the Agreements and Differences of the Stoics and Epicureans.

Their Agreements.

1. Both subordinated theory to practice.
2. Both had the same purpose in their practical philosophy :
 - (a) to gain peace of mind for the individual,
 - (b) to gain independence of the world for the individual.

Their Differences.

The Stoics.

The Epicureans.

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| 1. Universal law is supreme. | The individual is supreme. |
| 2. Man is a thinking being. | Man is a feeling being. |
| 3. Independence is obtained by suppressing the personal feelings. | Independence is obtained by idealizing the feelings through serenity. |
| 4. The Stoics were religious,
yet both schools accepted the popular gods. | The Epicureans were anti-religious, |
| 5. The world is a moral order. | The world is a mechanical order. |

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|---|---|
| 6. The universal determines the individual. | The universal is the result of the functioning of the individual. |
| 7. The world is the expression of an immanent reason. | The world is the combination of atoms. |

CHAPTER X

EPICUREANISM

The Life of Epicurus (341–270 B. c.). Epicurus was born in Samos in Asia Minor. He was a school-teacher in Mitylene and Lampsacus, and in 307 B. c. he established in Athens his Philosophical School, in a garden within the walls on the road to the Academy (see map). His School was thereafter called the Gardens. He claimed to have been self-taught, and he probably did not have a thorough education. He did, however, possess great personal charm and, as his doctrine made few demands upon its disciples and expressed the refined and delicate hedonism of the time, it spread very wide. His disciples held him in great reverence, and long after his death the image of his personality was a living influence with them. Indeed, it was the personal work of Epicurus that was the supreme influence with the sect. His formulas passed on from generation to generation and were called “Golden Maxims.”* He wrote three hundred separate treatises, and in the amount of his writings was exceeded in antiquity only by the Stoic, Chrysippus. His great work, *On Nature*, consisted of thirty-seven books. The other Schools joined in a bitter attack upon him, and in modern times he has been called *Socrate doublé d'un Voltaire*. Since neither polytheism nor Christianity had any reason for

* Read Walter Pater, *Marius the Epicurean*; Hicks, *Stoic and Epicurean*, p. 184, for the *Golden Maxims* of Epicurus; Teuffel, *History of Roman Literature*, pp. 83–86.

preserving his writings, they have been almost entirely lost. Some have been found in Herculaneum, and many more are thought to be still in that buried city. The mother of Epicurus was a priestess, and her superstitions probably set him against the superstitions of his age. His later acquaintance with the philosophy of Democritus gave him a scientific basis for his aggression against all religions.

The Epicureans. The Epicurean body was a guild or sect that seemed to have been little affected by the vicissitudes of time. The Epicureans proselyted vigorously, closely organized their society, and extended it throughout Greece. It was a state within a state. With a fixed constitution it was held together by itinerant preaching, correspondence, and material assistance. It had an *esprit de corps*, and like religious communities it brought together into one organization the individuals that had been scattered by the breaking up of political institutions. The School had special protection from the Roman emperors and existed as late as the fourth century A. D., having outlived all the other systems. It had some famous literary representatives, — Metrodorus, Colotes, Philodemus, — but especially the Roman poet Lucretius, who popularized the doctrine for the Romans. Amafinius introduced Epicureanism into Rome during the middle of the second century B. C., and the teaching was received with great favor. Its numerous disciples in all antiquity changed the doctrine only in its unessentials. The charges of immorality and licentiousness are not true of the teaching or of the practices of the founder or of the early members of the School.

Some Types of Hedonism, — Aristippus, Epicurus,

and Rousseau. Epicureanism was not a philosophy of pleasure for people without ideals or who were merely seeking indulgence. The question that Epicurus asked was this : What enduring pleasure is possible to a man in these days of turmoil? He tried to give a rational answer to those of his day who wished to live and enjoy. His aim was to free man from responsibility in his share of the world's work and to provide for him a life of serenity. The pleasure theory of Aristippus, the Cyrenaic, was very different. Aristippus, a voluptuary in a luxurious city, presented a pleasure theory for the few who have fortunes. It is hardly more than a grading of pleasures and the setting up of a criterion of their selection. Epicurus goes deeper than that. His pleasure theory is for the few, not because they are fortunate, but because they are wise ; not because they have fortunes to gratify their passions, but because they are independent of all fortune. The Cyrenaic was a man of the world ; the Epicurean was in the world, but not of it.

There is a superficial resemblance between the teaching of Epicurus and the message of Rousseau to the French people of the eighteenth century. Both sought an ideal of enduring pleasure. Both would discard the artificialities of society. But Rousseau was a political reformer and attempted to find his ideal in a newly constructed society. Epicurus, on the other hand, was no political reformer, but would find his ideal in society as it existed. Rousseau appealed to the primitive feelings. He felt "the call of the wild." Epicurus appealed to the refined and derivative feelings. He had no aggressive propaganda. He aimed at no external reform. His ideal was peace, and not the sword.

The Epicurean Ideal. *The central principle of Epicurus is that pleasure is a good and pain an evil.* In this he was in agreement with Aristippus, and from this position he never receded. He offered no proof of this, but rested his central principle upon the conviction that men pursue pleasure and avoid pain. He was convinced of the biological fact. But he was not unobservant from the beginning that the subject was complex. He saw that the individual has to make a selection of pleasure and often has to choose pain for the sake of a greater pleasure. Pleasure is the only good, but Epicurus asks further, What is pleasure? He finds that he must give a content to pleasure and evaluate the pleasures in the interests of pleasure itself. This was to Epicurus no moral appraisal, but with reference to the pleasantest possible life.

Of the two qualities of pleasure *Epicurus valued its duration* and showed his advance over the Cyrenaics, who had valued its intensity. It was on this account that the Epicureans disclaimed all relationship with the Cyrenaics, the earlier school. The difference is certainly a radical one between them: to Epicurus true pleasure is that which endures; to Aristippus it is that which is most intense, however fleeting. There is this to be said of the Cyrenaic theory: it could be easily understood. Aristippus could tell exactly what he meant by pleasure. It is this or that gratification of sense. It includes every positive pleasure, and that which is intensest is best. One always knows when he is enjoying, and in flitting from pleasure to pleasure he knows when he is intensely enjoying. But the Cyrenaic presented no ideal. While the Epicurean theory is more difficult to understand, it is more mature and more pro-

found because it presents a well-conceived ideal. Indeed, the farther we follow Epicurus along this line of his pursuit of the ideal of lasting pleasure, the more are we impressed with his contribution to our knowledge of the nature of pleasure.

In this connection Epicurus shows his comprehensive grasp of the subject in determining what are the lasting pleasures. Although he was a materialist he regarded the pleasures of the mind as superior to those of the body. The inner pleasures, the spiritual joys, the control of the mind so that it could enjoy without indulgence — these were to Epicurus the enduring pleasures. The pleasures of sense are primary, for, in the last analysis, the mental life is a combination of sensations, and sensations are only material motions; nevertheless the secondary and derivative pleasures of the mind were superior, according to Epicurus, because they had duration. This estimate of the superiority of the mental pleasures was probably reinforced by two other reasons: such pleasures were possessed by Epicurus; and such a doctrine was in accord with the Greek æsthetic ideal of self-enjoyment of the refined egoist.

The most permanent state of mind is called by Epicurus *independence of the world*, on the one hand, and *emotionlessness*, on the other. These are the positive and negative sides of one and the same thing — the Epicurean ideal of pleasure. In ancient times the conception of the “affections,” “passions,” or “emotions” included all states of feeling and will in which man is dependent on the outer world. To be emotionless is to be independent of the world. The Epicurean word is *ataraxia*, which is variously translated as serenity, peace, repose, imperturbability. Since man has no con-

trol over the world without him, he must control its effects within himself. These effects are the feelings and desires which are by nature only mental disturbances. In mastering these he becomes independent of the world.

If one will scrutinize his life, he will find, according to Epicurus, that his experiences form a stream of mental disturbances. These may be divided into two classes, — desires and positive pleasures. Desires are wants and want is pain. Pain is therefore exciting. Positive pleasure presupposes desire and want, and such pleasure is also an excitement, — the excitement that accompanies the removal of want. The positive pleasures are not, therefore, the goal of independence of the outer world. There is another kind of pleasure — the pleasure of repose. Epicurus recognizes therefore both the pleasure of motion and the pleasure of repose, but they do not have the same importance in his system. Repose is the goal of all our experiences. It is a neutral state, a state of freedom from bodily pain and mental excitement. There is nothing higher than such a neutral state. We cannot advance beyond it. If we seek new pleasures by gratifying new desires, we are only returning to the old round of want, desire, and the pleasurable excitement of removing the want. The pleasure of repose is the only escape from this round of experiences. Emotionlessness is the maximum pleasure — it is the repose in independence of the world. Any deviation from it may vary but it will not increase our pleasure.

This ideal of Epicurus looks very much like the Cynic doctrine of absence of wants as constituting virtue and happiness. But Epicurus is far from renouncing pleasure. He is no ascetic. On the contrary,

the repose of the Epicurean will be the greater in proportion to the compass of his needs that are satisfied. But he needs insight into any given situation to tell him what positive pleasures should be encouraged. Epicurus thus distinguishes three kinds of wants and their attendant positive pleasures : (1) wants natural and indispensable — without the satisfaction of which we cannot exist ; (2) wants artificial and dispensable, which ought always to be disregarded ; (3) wants natural and dispensable — the great mass of wants which lie between the two other classes. Insight is necessary to decide about this third class. In case of necessity they can be renounced, but since they give happiness, the Wise Man will seek to satisfy them as far as possible.

There are three steps leading to Epicurean happiness : (1) the desire or the pain of unsatisfied craving ; (2) the positive pleasure that removes the pain of unsatisfied desire ; (3) ataraxia, the repose of the soul or true happiness.

The Place of Virtue in Epicureanism. Epicurus agreed with the strictest Greek moralists that virtue and happiness go together. His opponents had to testify to the beneficial effects of his teaching upon the character of his disciples. Yet his conception of the place of virtue in life is in direct conflict with Stoicism. He felt that the Stoic conception of virtue for its own sake is an ideal so imaginary that it lacks all incentive to action. Pleasure, on the other hand, seemed to him to be a concrete and real object. It can be given a definite content. Virtue had for Epicurus a value only as a means to happiness. Moreover, virtue by itself is not necessarily accompanied by happiness, but only when it is employed as a condition to happiness. Thus wisdom may

be employed to gain the pleasure of liberation from the fear of the gods ; self-control may be employed in order to get the maximum of happiness.

The Epicurean Wise Man. To what classes of people could this Epicurean ideal appeal ? Is it an ideal possible only to the favorites of fortune, wealth, and rank ? As presented by Epicurus it was not conditioned by external circumstances of any sort and its aim was to transcend all conditions. Nevertheless, it is obvious that the theory was restricted to those who had the desire to adopt it. On the whole, the unreflecting common people of that time were not as a matter of fact influenced by the Epicurean philosophy. The proof of this is the ease with which it was degraded into a simple pleasure theory without an ideal. Epicureanism as presented by its author was not an excuse for the voluptuary or the prodigal, although it was easily corrupted into that. It was, however, a philosophy of the individual. The individual must rely upon his own common sense as to what among the particular satisfactions will give him independence of the world. Sometimes repose is attained by the satisfaction of all wants ; sometimes the satisfactions needed are few because the wants are few. True pleasure is possible to all reflective souls. " When you come," says Seneca, " to the gardens where the words are inscribed : Friend, here it will be well for you to abide ; here pleasure is the highest good ; — there will meet you the keeper of the place, a hospitable kindly man who will set before you a dish of barley porridge and plenty of water and say, Have you not been well entertained ? These gardens do not provoke hunger, but quench it ; they do not cause a greater thirst by the drinks they afford. . . . In this pleasure I have grown old."

Man can use much, but he does not need much. Even life itself under extreme circumstances is not necessary. The pleasures to be sought are the permanent and gentle. In one place Epicurus says with a somewhat forced sentiment that the Wise Man on the rack will smile in the midst of torture and say, "How sweet!"

The Wise Man accepts the established order and accommodates himself to it. He is not like the Stoic Wise Man, indifferent to all pleasures, but he is nevertheless independent of them. He is superior to the world, a king and a god. Accidents cannot disturb him, for his virtuous happiness lies within himself. He cannot control the world without, but he can control the world within himself. He can be happy with few or many satisfactions, and he is master over the world if he is master of the effects of the world upon himself. To rest unmoved in one's inner self — that is the Epicurean ideal of the Wise Man. In contrast to the Cyrenaic happiness, the Epicurean happiness seems passive; in contrast to the Stoic happiness it is satisfaction.

The Epicurean Wise Man in Society. Nevertheless the Wise Man is only a spectator of the world. He does not enter the world's work nor does he enlist as a soldier to fight its moral battles. His individual independence gives a peculiar character to his social relations. He will have no ties on account of their complications. Moreover, his inner world offers him no compensation for his loss of social relationship, except that the good within is strong and the evil weak. He looks upon political government as a matter of selfish convenience. He is opposed to civic life, and therefore a supporter of absolute government. He refuses the responsibility of marriage, but accepts friendship as the only worthy social relation-

ship, and only because friendship is of mutual advantage. Friendship means intellectual intercourse, compassion, and forgiveness. While there were many famous Epicurean friendships, one must admit that the Epicurean took an unfair advantage of the state. His happiness presupposed a highly developed civilization of refined tastes and noble sentiments. He is a parasite upon the community and appropriates the labor of others. The Epicurean ideal offers much to the individual, but nothing to society as a means of spiritual productivity.

The Great Obstacles to Happiness. To universalize pleasure, however paradoxical it may seem, is to set up an individualism. It is to abandon all the claims of the society of other beings upon us. The logic of any pleasure theory is anarchism. But Epicurus is no anarchist, for anarchism would be too disturbing to repose. Epicurus stopped far short of interfering with political conditions. His teaching did not have as its end a logical theory, but a practical accomplishment. He therefore accommodated his theory to the practical circumstances of his time. He pointed out that in the seething times of the third century B. C. the individual could be happy if he banished from his world two obstacles. These were religion and culture.

To Epicurus the sorrow in man's heart and the evil in his practices are mainly due to religion. The chief source of the wretchedness of the world is to be found in the crushing fears of religious belief. Epicurus has in mind the exaggerated ceremonies and mystical beliefs of the Orient, where his mother had been a priestess. From this memory he was reacting. Religion pollutes men's fancies, clouds the future with superstitious fears, and puts repose and happiness beyond our reach.

In the first place, religion carries with it the fear of death. In modern times the idea of life after death is an added consolation. In the time of Epicurus death meant the giving up of the present life for a dim, sunless region of flitting shades bordering on the edge of Tartarus. No philosophical mind can be happy, according to Epicurus, if it contains the religious conception of death and the future life. Again, religion conceives the world of nature as created and operated by the gods. It is forever explaining nature-phenomena as miraculous and supernatural. The tranquil mind must believe in a nature world that is separated from miraculous intervention, and freed from oversight. The world must be a dependable world. Lastly, religion conceives of the gods as always busying themselves with the affairs of men. Men must secure their favor and avert their wrath by constant offerings. The religious man wastes his time and consumes his peace in the fear that the gods are not propitiated. The Epicurean seeks to build up the life of the individual. He seeks a tranquillity that is independent of everything. Religious belief with its interfering gods would thwart his ideal. Hence the chief concern of the Epicurean was to banish from life every conception of divine government. The gods exist, but they live quite apart from men. Their dwelling is in inter-stellar space amid the numberless worlds. They have nothing to do with the events of this world, but are only glorified actualizations of the philosophic ideal of soul-satisfying peace. The more the teleological conception of nature became the common ground of the Academy, the Lyceum, and the Porch, the more did the Epicureans isolate themselves by opposing the conception.

The other obstacle to the imperturbability of the soul

is culture. The Stoics subordinated theory to practice, but Epicurus went so far as to deprecate all culture. It was the philosophical protest of an Oriental against all for which Greece had stood. All knowledge is superfluous which does not promote happiness. Knowledge may indirectly promote happiness, and that is the best you can say of it. Epicurus therefore despised the researches of the grammarians, the lore of history, the science of mathematics, the theory of music, poetry, rhetoric, oratory, logic. Although he set greater store by the intellectual than the physical pleasures, he placed as little value on knowledge for its own sake as upon virtue for its own sake. This teaching of Epicurus in Athens betrays the change that had come over Athenian society. Plato, who had been the impersonation of Athenian culture, had been dead not more than thirty years.

Epicurus' Conception of the Physical World. — Qualified Atomism. To the cursory reader the science of physics seems to occupy a large place in the philosophy of Epicurus, and its presence appears inconsistent with his polemic against culture. Upon further reading one finds that physics, too, should be merely a servant of the happiness of the individual. We need knowledge of physics because the knowledge of natural causes will free us from the fears attending religion. Physics has no independent importance.

Epicurus undertook to support his doctrine of individualism by the scientific theory of Democritus. The materialistic theory of the great Abderite seems to loom large in the exposition of Epicurus. But Epicurus was not interested in the science of physics — not even in the physics of Democritus. He did not build his theory on the teaching of Democritus, but on the con-

trary he used the Democritan doctrine to support his theory of moral conduct. Epicurus needed a well-authenticated theory. On account of the influence of Lucretius' poem, Epicurus has been called in modern times the scientist of antiquity. But his only contribution to science was that, finding the atomism of Democritus ready at hand although unpopular, he made it popular by adjusting it to his own purposes.

The Democritan conception that Being is matter consisting of innumerable uncreated and indestructible atoms furnished Epicurus this support for his moral atomism. He followed Democritus in his analysis of psychological, physiological, and astronomical phenomena — all are atoms in combinations. But he lacked scientific insight and the Democritan doctrine was emasculated in his hands. The central and fundamental principle of Democritus' theory was the universal reign of law. This the Stoics adopted and this Epicurus neglected. Epicurus was impressed by the changes of the atoms in the Democritan theory; the Stoics by the law of such change.

This appears in the teaching of Epicurus in two ways. The first example is in his explanation of the origin of the cosmos. Democritus had conceived that irregular motion was an inherent quality of the atoms and that the universe was produced by their combinations in a purely mechanical way. Epicurus conceived that the original movement of the atoms was in a straight line from above downwards. This he called the "rain of atoms." To explain their intermingling he conceived them to be endowed with volition by which they arbitrarily deviated from the direct fall. Secondly, **this** physical theory of Epicurus would be unimportant

except that it afforded him a basis for his theory of the individual as possessing free will. The doctrine of freedom of the will had been since Aristotle a presupposition indispensable to the doctrine of moral accountability among the Greeks. The Stoic doctrine of fate is an exception. But determinism was opposed to Epicurus' conception of the Wise Man as an independent individual. The human will is self-determined, and Epicurus even said that he preferred the illusions of religion to a belief in our slavery to fate. He classed freedom and chance together as uncaused occurrence, and out of the combination built his conception of freedom. The uncaused functioning of the will in man is the same as the causeless deviation of the atoms. Freedom is the choice between different possibilities and is determined by no cause. The Stoics alone among the philosophers of this time are the forerunners of the study of physics.

Epicurus introduced the conception of volition of the atoms to account for the origin of the cosmos. From that point he conceived the world to develop in a mechanical way. Teleology in the nature world was repugnant to him. By modifying the Democritan physics, he thus succeeded in establishing the independence of the individual in the social world and, on the other hand, removing the gods from interfering in the physical world. This seemed to Epicurus to afford an absolute deliverance from superstition. The important points of the physical theory of Epicurus are these: (1) the freedom of the atoms in motion; (2) and yet their mechanical development; (3) the atomic character of the gods; (4) the scattering of the atoms of the soul at death, which frees us from the fear of Hades.

CHAPTER XI

STOICISM

The Position of Stoicism in Antiquity. The Stoic School had a long history, and for five hundred years it was well-nigh the dominating system of thought. Its importance is shown in the attacks on all sides by which it was honored. It was subjected to a continued critical testing by the Peripatetics, Epicureans, Skeptics, and the Academy. It was without doubt the most comprehensive School of the Hellenic-Roman Period, and numbered as its adherents the most brilliant personalities of the time. In its importance to history its only rival was neo-Platonism, which came after it. Stoicism accomplished much toward solving the problem of life, for it is one of the great inner, spiritual movements of humanity. It was a system of philosophy raised upon the ruins of polytheism — a religion for the educated classes, who tried to harmonize the old religion with the new philosophic needs. In the early Christian centuries it led the moral reform by reviving the classic ideals. It became a retreat into the invisible order, a solace amid unrest. Particularly at that time the Stoic felt the emptiness of human life, for his possession of eternity made earthly existence seem as nothing. Yet it was a movement of subjective reflection and individual motive; but as such it could not prove itself adequate when the structure of Roman society broke down.

But we must not take the *Roman* Stoics as the representatives of the sect. The Stoics stood for more than

moral reflection. The great achievement came from the first three leaders — *the achievement of giving a scientific basis to morals*. The Stoics made ethics an independent science. Such an elaborate system of morals as that of the Stoics had never before existed. Stoicism was morality with a theoretical foundation, and the foundation was the most imposing part of the edifice. This appeared in Roman jurisprudence, and in later times in Grotius, Descartes, Spinoza, the Calvinists and Puritans, and in Kant and Fichte. The writings of the individual Stoics have become a part of the world's literature, and the Stoic view of life has maintained itself as a dignified and independent type.

The Three Periods of Stoicism. The five hundred years of the history of the Stoic School are usually divided into three periods. The first is about 90 years long, in which the doctrine was formulated ; the second is 200 years long, when the doctrine was modified ; the third was 200 years long, when it became a popular moral philosophy. The first two periods were theoretical, the third was practical.

1. Period of Formulation of the Doctrine (294 B. C. –206 B. C.), sometimes called the period of Cynical Stoicism. This period contains the three great leaders : Zeno (340–265 B. C.), Cleanthes, leader of the School from 264 to 232 B. C., and Chrysippus (280–206 B. C.). Zeno of Tarsus, Diogenes of Seleucia, and Antipater of Tarsus were other important representatives.

2. Period of Modified Stoicism (206 B. C.–1 A. D.). This was the period of transition. This period shows a modification of the original severe Cynical character of the doctrine and also the spread of Stoicism to Rome. This modification shows an approach to Plato and Aris-

totle. The most important representative of this period is Panætius (180–110 B. C.), who introduced the doctrine into Rome through his friendship with Scipio Africanus. Other eminent Stoics of this period were Posidonius and Boëthius of Sidon.

3. Period of Roman Stoicism (1–200 A. D.). During this period Stoicism became a popular moral philosophy. The theoretic teachings of the first two periods were successfully translated by the Roman Stoics in an impressive way into practical observations. Furthermore, Stoicism was being inspired with the rising religious feeling so that it expressed the noblest moral sentiments of antiquity. The chief representatives were Seneca (4–65 A. D.), Epictetus (living 90 A. D.) the philosophic slave, and the emperor Marcus Aurelius (121–180 A. D.). Other Stoics of this period were L. Annæus Cornutus, M. Annæus Lucanus, Persius, and M. Musonius Rufus.

The Stoic Leaders. One of the striking features of the Stoic School is that its leaders were not pure Greeks. Nearly all the members before the Christian era belong by birth to the mixed races of Asia Minor and the eastern archipelago. Moreover, the later Stoics were mainly Romans, led by the Phrygian, Epictetus. The Stoics who were Greeks were third or fourth rate men. The Stoic School contained so many eminent thinkers that its doctrine was not framed once and for all, like the Epicurean doctrine. During the five hundred years from Zeno to Marcus Aurelius, theoretic changes went on within the School, and the changes were rather modifications than development. Fundamentally, Stoicism remained the same, for it was a religious attitude of mind.

Athens was the abiding-place of the Stoic School, but Athens of that day had little to say to it except to receive it. The great Stoic leaders, the first three Stoics, like the three tragic poets, formed a group that is rarely equaled. They were Zeno, Cleanthes, and Chrysippus. Zeno and Chrysippus came from Cyprus, and Cleanthes came from Assos, not far from Troy. Cyprus, Lycia, and Pisidia showed a strong inclination for the Stoic teaching. Tarsus, which is in Cilicia, had a strong Stoic School, and its influence on the training of St. Paul is seen in his theology.

The founding of the Stoic School was the result of the experiences of Zeno of Citium. Having lost much of his wealth in commerce, he turned to philosophy at Athens. Impressed with the character of Socrates, he attached himself successively to the Cynic, Megarian, and Platonic Schools, but without much satisfaction. He made himself master of the teachings of these Schools, and then founded a School of his own. It is said that when he asked for admittance to the Academy, Polemo, the leader, replied, "I am no stranger to your Phœnician art, Zeno. I perceive your design is to creep slyly into my garden and steal away my fruit." In 294 B. C. he began to teach in the Painted Porch (see map, p. 219), a painted colonnade in the Athenian market-place. The School thereafter went by the name of Stoa, or the Porch. His contemporary antagonists were Arcesilaus in the Academy, and Epicurus. Zeno's reputation throughout Greece was very high and well deserved. He was a parsimonious man, simple and rude spoken. He used a bad dialect, foreign words, and taught a strange doctrine. He suffered a slight wound and, taking it as a hint of destiny, committed

suicide, saying, "I am coming, Earth, why do you call me?"

Stoicism did not flourish under Cleanthes (who was leader of the School for thirty-two years), although to-day he is the best known of these three leaders on account of his *Hymn to Zeus*. He was originally a pugilist, and was so poor that he had to work as a water-carrier by night in order to attend the lectures of Zeno by day. He is said to have had a heavy mind, but it was nevertheless the mind of an inspired prophet and a thoughtful man of science. When Cleanthes received the Stoic doctrines from Zeno, they were still plastic. He made them monistic and pantheistic, and introduced the doctrine of "tension."

Under Chrysippus (280-206 B. C.) Stoicism was revived and he saved it from extinction. Chrysippus was the systematizer of the School and its literary representative. He wrote five hundred and five separate treatises, three hundred of which were on logical subjects. He is said to have seldom let a day pass without writing five hundred lines. He was the moderating influence of the School, mediating between extremes and removing objections. He restated Zeno's doctrines, but his discourses abound in curious subtleties rather than argument. He was a much more scholarly man than his predecessors, and passed for the most learned man in antiquity. "Give me doctrines," he said to Cleanthes, "and I will find arguments for them." His haughtiness created many adversaries, both in the Academy and among the Epicureans, and he had great contempt for men of rank. He said, "If I thought any philosopher excelled me, I would myself become his pupil." It was a common saying in those days, "No Chrysippus,

no Stoa." In the hands of Chrysippus the Stoic teaching became a well-rounded system.

The Stoic Writings. Nearly all the writings of the early Stoics have been lost. Only fragments have been preserved from the writings of other men like Cicero, Plutarch, Sextus Empiricus, and Diogenes Laertius, and these men do not always distinguish between early and later Stoicism. The principal source of our knowledge of early Stoicism is Diogenes Laertius. The *Hymn to Zeus* of Cleanthes is the most noteworthy fragment extant of the early period. ~~Of~~ the later Stoics of the Empire many writings have been saved: the ethical treatises and epistles of Seneca, the *Diatribes* and *Encheiridion* of Epictetus, and the *Meditations* of Marcus Aurelius. The later Stoic writings transmit the teaching of the earlier leaders modified by many foreign influences. Such second-hand authorities as Cicero, Plutarch, Diogenes Laertius and Sextus Empiricus, and the Aristotelian commentators give reports so vitiated that it is doubtful if they report any element belonging to the earlier teaching. The doctrine of the Stoics, since the time of Chrysippus, however, is known beyond peradventure.

The Stoics and Cynics. The Stoics tried to build up the life of the soul after the pattern of the virtuous Wise Man, whose outlines they borrowed from the transfigured and lofty form of Socrates. (Noack.) Their teaching is not merely a refinement and advance over the Cynic School as Epicureanism had been to the Cyrenaic School. Stoicism and Epicureanism used their sources in different ways. The Stoic would give up more than the Epicurean, and the negative side of his teaching is therefore greater; but in recompense

he offers more in the shape of a comprehensive metaphysics. The Cyrenaic doctrine of pleasure became the corner stone of Epicureanism. The Cynic sensualistic rigorism became in the Stoic teaching a negative and relatively unimportant doctrine. While the Stoic distinction of virtue was not unproductive, the most influential aspect of Stoicism was its dissemination of humane culture. Thus, in contrast with the Cynics, the Stoics had a deep interest in scientific theory. The Stoic, less than the Cynic, contrasted the individual with the world. The Stoics have a more intelligent, freer, and milder morality. To the Cynics, external things have no value; to the Stoics, they have both a positive and a negative value. Beneath these differences there is the same self-sufficiency in virtue, the same withdrawal within, the same moral strength of will, the same *anesthesia* between good and evil. Stoicism was original, but not enough so to mark the beginning of a new epoch.

The Two Prominent Stoic Conceptions. There are two Stoic conceptions that rise prominently above all the rest of their teaching. One is the conception of personality, the other is the conception of Nature. Epicureanism built up the conception of personality, but it had no need of an objective principle of Nature; and indeed the Epicurean conception of personality seems to be only a clever adjustment and an avoidance of the problems of life, compared to the clear-cut, heroic, and vigorous Stoic conception of personality. Thus in Epicureanism there is one prominent conception, in Stoicism there are two.

These two Stoic principles stand side by side. The Stoic builds them up together, even though he fails to

make them entirely compatible. All the essential difficulties and all the excellencies of Stoicism lie in the juxtaposition of the conceptions of personality and Nature. In early Stoicism each conception is stated with great vigor. In later Stoicism their harmony is approximated by the modification of each. The result was an ethical dualism and a metaphysical monism.

The Conception of Personality. Against Epicureanism the Stoic fought for the dignity of the soul. The ideal personality of the Wise Man is the central point in Stoicism. Even more than Aristotle did the Stoic emphasize the unity and independence of the individual soul as contrasted to its particular states. For the first time in European thought does the soul become an independent factor to be reckoned with. The Stoic picture of the ideal personality is of a life completely sundered from outward conditions, free from earthly trammels, but at the same time the organ of universal law. Contemporaries asked the Stoics, How can such an ideal be a person? How can he live among his fellow men? How can he reconcile himself to human want? After setting forth this ideal during the 175 years of their first period, it is not strange that they were finally forced to modify it in response to practical demands. At this point we shall consider the original portrayal of the Wise Man.

1. **The Stoic Psychology.** The Stoic built his conception of personality upon a deep psychological analysis. The soul in the body is like the *pneuma* in the world (see p. 255). Not only does the soul transform the excitations of the several sense organs into perceptions, but its distinguishing faculty is its power of transforming the excitations of the feelings into acts of will.

This was called by the Stoics *the assent of the reason, and is the distinguishing feature of the Stoic conception of personality*. It established for the first time in history the independence of the personal soul. The Stoic felt keenly the antagonism between the reason and the senses, and he also felt that by estimating the senses as merely relative in value they would so much the more dignify the reason as the fundamental feature of the personality. While, therefore, all knowledge comes from the senses, the Stoic maintained that no knowledge exists in the senses by themselves. The assent of the reason is necessary to transform the sensations into true knowledge. The reason is not an aggregate of sensations, but an independent function of the personality. It transforms the sensations into perceptions, the perceptions into acts of will. The reason is therefore a kind of generating power of consciousness and is free from everything external. But in contrast to this free rational side is the irrational nature of man ; for the reason is liable to suffer failure, when it allows itself to be hurried along to give assent to exciting causes. Then emotions arise, and emotions are failures, mental disturbances, and in chronic cases diseases. Man is not always able to defend himself against the excitations of his environment, but he can refuse to give the excitations his assent. He can refuse to allow the excitations to become emotions and to pour forth his life in passion. Man may be in the world and not of it. He may govern the world by controlling himself. The Wise Man is free from the emotions, and virtue consists in their absence. The virtuous man is self-sufficient in the proud consciousness that he can look upon pleasure as not a good and pain as not an evil.

What guide does the reason have in granting or refusing its assent to its perceptions from without? What is the criterion of the truth? The clearness of the perception — the clearness in the sense that the presentation lays hold of the mind and extorts its assent. The truth is the “irresistible presentation” or the “apprehending presentation.” Who can know the truth? The Wise Man. By what means? By sensation and pre-conception. By what sign? By the sign of its irresistible power. The Wise Man is perfectly free and perfectly necessitated — he never gives assent except to what constrains assent.

2. **The Highest Good.** What is then the Highest Good or happiness for such a personality? After such an analysis, what would the Stoic be likely to conceive to be the true ends of life? The very nature of the personality gives the answer. Personality is fundamentally rational activity which seeks to preserve itself and to gratify its own nature. The Highest Good is the law of its own rationality, and virtue consists in being rational. In reaching for the Highest Good man can transcend his particular faculties in his free obedience to his own reason; and the wholeness of his existence depends upon the wholeness of his deed. Thus is the inner activity *whole* in contrast to the partial outer activities. Inwardness attains complete independence and finds the depth of the soul. We are free and we are happy if the whole being goes out in contemplation of the world reason which is our reason, and if all the feelings that make us dependent on the world are excluded. Since the emotions place a false value on things, happiness demands a whole effort and ceaseless activity. We must not merely theorize, but thought must become

conduct. Thought-action yields happiness. It does not matter whether man acts with reference to this or that, for external objects are neither good nor bad. The whole question is whether the reason controls the passions or not. If the reason controls, the end is good; if the passions control, the end is evil; all other ends are indifferent. The reason either does or does not rule, and an act is either good or not. Good is not relative, but absolute; and such relative matters as wealth, honor, and riches are matters of indifference. Even life itself is one of the indifferent things and may be taken when it does not serve the ends of reason. The Highest Good is that inner unity — that disposition — which is governed by a single principle.

The Stoic word for this ideal Good is apathy, just as the Epicurean word was ataraxy or imperturbability. Positively defined, it is virtue. Negatively defined, can we say it was passionlessness? This would not be quite correct. By apathy the Stoic means not absence of all feeling, but *absence of control by the feelings*. The Stoic was filled with joy, gratitude, serene confidence, and unwavering submission in regard to rational law. Apathy is not dull insensibility, but immovable firmness. It is absence of the emotions that render the man dependent on the world, but it is not absence of the reaching out of the soul for the divine. The Highest Good or Apathy is (1) intellectual resignation to the universe, (2) practical inner harmony, and (3) self-control. In seeking to be rational, man is following an impulse, — the impulse of self-preservation.

The Conception of Nature. In comparison with the Epicurean the position of the Stoic was peculiarly involved. The ideal imperturbability of the Epicurean was

simple in so far that it required nothing beyond itself. It was an individual matter and varied with the individual. But the Stoic ideal personality is based upon the reason, that is eternally one and the same. What is this absolute principle that gives to the human reason its absoluteness? What is the extent of the law of the reason that the human reason itself implies? Thus the Stoic needed to supplement his conception of personality and the Epicurean did not. Because his individualism was more rigorous, it needed the more to be supported. The Stoic principle of morality had to have its foundation in the absolute nature of things. This foundation could not be the politico-moral principle of Greek national life, for that existed no longer. It could not be a transcendent, supersensuous, or incorporeal principle, for his Cynic inheritance would forbid his looking beyond experience. The supplementary absolute principle of the Stoics must be an immanent principle, a living power in the world. A pantheistic conception of Nature took its place side by side with the Stoic conception of personality, and this conception of Nature became the central point of the Stoic metaphysics. For this the Stoics adopted the Logos doctrine of Heracleitus, which will be recalled as the doctrine of primal matter as rational, just, and fateful changingness. The Stoics were reinforced in this by Aristotle's teleological philosophy of nature. Yet they tried to overcome the dualism of matter and Form as it existed in Aristotle's teaching, and one feels that the Stoic pantheism was a conscious and avowed pantheism. The Stoic conception of Nature is that of a unitary, rational, and living whole, having no parts, but only determinate forms. Yet it cannot be called a hylozoism,

like the doctrine of Heraclitus, for there Form and matter had not been distinguished. In the intervening years Form and matter had been separated, and the Stoic sought to put them together again. In comparison with the doctrine of the Old Schools, the Stoic teaching was (1) monistic, as against their dualism, (2) materialistic, as against their idealism, but (3) like them, it was teleological.

1. In the first place, *Nature is an all-pervading World-Being*. It is God, "in whom we live and move and have our being." It contains in itself all cosmic phenomena, and processes, past, present, and future. It is the World-ground and the World-mind, and yet it is all-in-all. It is the productive and formative power, the vitalizing principle. In general, it is the creative and guiding reason; in particular, it is Providence or divine government. It is the unswerving whole in which the single events of history take place. To the Stoics the cosmic Reason was so apparent in Nature that purpose appeared to them in everything. In their hands the great teleological conception of Aristotle's immanent purposiveness sank to the petty purposiveness for human beings and for the gods. Yet it is no wonder that this conception of an all-pervasive deity became a religion to the Stoics and raised their moral code to the region of the sublime. The world is Fate so far as the minutest movements are determined. Nature is Providence so far as those determinations are full of purpose. Nature is in every part perfect and without blemish.

2. In the second place, *Nature is an all-compelling law*. Nature is an inviolable necessity, an inevitable destiny, that holds all phenomena in complete causal

connection. Yet this destiny only proves the complete purpose of the whole. The Stoic seized upon the central principle of Democritus, — which the Epicureans had overlooked, — the supremacy of law. “The doctrine of Democritus passed over to the Epicureans only so far as it was atomism and mechanism; with regard to the deeper and more valuable principle of the universal reign of law in Nature, his legacy passed to the Stoics.”¹ There is no such thing as chance; everything is caused. In Epicureanism one finds the doctrine of necessity, but the necessity comes from the atoms themselves. In Stoicism the necessity resides in the living activity of the whole. A living activity! Herein the Stoic conception differs from the Democritan teaching. The necessity is a living necessity, the destiny a living destiny.

3. In the third place, *Nature is matter*. On the theoretical side Stoicism agrees with Epicureanism only at one point, — both were materialistic. The materialism of both these New Schools got a disproportionate prominence because it had to be defended against the attacks of the Academy and the Lyceum. The materialism of the Epicureans was a mere adoption of a theory; the materialism of the Stoics was only one aspect of its supplementary basis. Nevertheless, to the Stoic matter alone is real, because *it alone acts and is acted upon*. Everything is matter, — nature-objects, God and the soul, and even the qualities, forces, and relations between material bodies. The Stoics regarded the presence and interchange of the qualities of things as the appearance and intermingling of bodies in these things.

There can be no doubt about the materialism of the Stoic teaching, although both material and spiritual

¹ Windelband, *Hist. of Phil.*, p. 183.

attributes are ascribed to God in a way that is startling. The Heracleitan conception of fire as the primary substance is the Stoic conception of God. God is fire, air, ether, and most commonly the atmospheric currents which pervade all things. But God is also the World-soul, the World-mind, the Cosmic-reason, the universal Law, Nature, Destiny, Providence. He is a perfect, happy, and kind Being. In single statements these aspects are often combined and God is described as the Fiery Reason of the world, the Mind in matter, the reasonable Air-currents. The Stoic equation is Nature = Matter = Fire = Reason = Fate = Providence = God.

The Stoics followed Heracleitus also in their conception of the development of the present world from the cosmic fire. "In all points of detail their views on what we call physical science are contemptible. They contained not one iota of scientific thinking."¹ They followed Aristotle, however, in their description of the elements and their teleological arrangements.

The primitive substance changes by its own inner rational law into force and matter. Force is the World-soul, the pneuma or warm breath, which pervades all things. Matter is the World-body, and is water and earth. In cosmic periods the primitive fire is destined to re-absorb the world of variety into itself and then consume it in a universal catastrophe.

The most important feature in the Stoic materialism is the conception of pneuma, or the force into which the original substance is differentiated. This is the World-soul. Nature is thus conceived as dynamical. The Stoic word for the World-soul is translated by various expressions, as "creative reason," "generative powers,"

¹ Adamson, *The Development of Greek Philosophy*, p. 267.

“formative fire-mind.” It penetrates all things and dominates all as their active principle. Through it the universe is one, not a plurality of parts. The pneuma is the life of the universe. Its motion is spontaneous ; its development is teleological. The pneuma is an extraordinarily condensed conception, containing as it does suggestions from Heraclitus’ Logos, Anaxagoras’ Nous, Democritus’ fire-atoms, and Aristotle’s *Energieia*.

The human being has a constitution analogous to the universe. Man is the microcosm and the universe the macrocosm. The soul of man is the pneuma which holds his body together, and it is an emanation from the divine pneuma. Mental states — thought and emotions — are air currents. Virtue is the tension of the atmospheric substance of the soul. The material, yet divine, pneuma constitutes man’s reason, causes his activities, is seated in his breast. Since the pneuma is a body, it disconnects itself from the human corpse at death, has a limited immortality, and returns to the cosmic pneuma at the conflagration of the world.

The Conceptions of Nature and Personality supplement each other. Thus fundamentally the personality is identical with the cosmos — it is reason. To turn the matter about, by reason or “nature” the Stoic means two things that are essentially one. He means the reason of man, or the reason of the world ; to “live according to nature” is to live according to the nature of man or according to the nature of the world. The life of the Wise Man as a harmony with physical nature is a harmony with itself as well. The antithesis to “nature” or “reason” is sensuous nature. What we speak of as the natural impulses were not “natural” at all in the Stoic teaching.

"Nature" as universal is the creative cosmic power acting for ends. Coördination with this constitutes morality. It is a willing obedience to eternal necessity. The "fool" acts according to his sensations and impulses, and therefore against "nature." But the Wise Man, by withdrawing within himself, is his own independent master because he is acting universally. "Nature" is the life-unity of the human soul with the world reason. True individual morality is therefore universal morality, complete humanity, universal rationality. To obey "nature" is to develop the essential germ in one's self.

Thus these two points of view were obtained of life-unity: a universe rationally guiding in all its changes; the human individual epitomizing this universe in himself as a rule for his conduct amid his vicissitudes.

The Stoic and Society. Men are divided into two classes, — the entirely wise and virtuous, or the entirely foolish and vicious. There is no middle ground. If a man possesses a sound reason, he has all the virtues; if he lacks this reason, he lacks all. There are only a few Sages; the mass of men are fools. The Stoics were continually lamenting with Pharisaical pessimism the great baseness of men. From their sublime height they looked upon the Wise Man as incapable of sin, upon the fool as incapable of virtue. In thus denying the ordinary distinctions between good and evil, they were dangerous in politics. Their political perspective was not reliable. In general, they did not enter the politics of the democracies where they lived. They were, however, often the advisers of tyrants, and often assisted in removing them (as in the case of Julius Cæsar). The

Stoic School of Musonius Rufus made a splendid Puritan protest against Nero and Domitian, and finally his disciples and friends controlled the empire for a century (second century A. D.).¹ The Stoic regarded his Wise Man as attaining the same independence that the Epicurean claimed for his Wise Man. He is lord and king. He is inferior to no other rational being, not even to Zeus himself.

The Stoic differs from the Epicurean in his attitude toward the political state. The two Schools agree that the sufficient Wise Man needs the state but little. The Epicurean teaches that society is not natural and not inherent in human nature. The Stoic, however, maintained that society is a divine institution, which gives way only occasionally to man's individual perfecting. Since man and the cosmic reason are identical, all men are essentially identical. When men therefore lead a life of reason, they lead a social life. This realm of reason includes not Romans alone, but all men, gods, and slaves. But the political government is only secondary, for the Stoic's ideal is a universal empire. The Stoic's interest in practical politics was as weak as his ideal of a rational society was transcendent. His teaching of justice and love for man was, however, a forecasting of the coming religious emancipation.

There are two antagonistic tendencies running through Stoicism. The first is to seek society with its virtues, — justice, love of men, sociability or cosmopolitanism. The second dispenses with society to gain an inner freedom. Yet these two tendencies often coincide.

They may be presented as follows :—

¹ Professor C. P. Parker.

To seek society.

1. Exaltation of justice and love.
2. World citizenship.
3. Relations and degrees of virtue.
4. Virtue depends somewhat on conditions.
5. Individual should submit to fate.

To dispense with society.

- Exaltation of inner freedom and happiness.
- The Wise Man.
- Absolute virtue and absolute vice.
- Knowledge alone is virtue.
- Individual should make fate.

Duty and Responsibility. The Stoic's identity of human and cosmic reason elevated the law of human conduct into a strict, universal law of duty. It embodies, on the one hand, the Cynic's protest against external law, and on the other the construction of the inner moral law. The backbone of Stoicism is sense of responsibility. The Stoics brought out as never before the contrast between what is and what ought to be. They were the most outspoken doctrinaires of antiquity, and formed a school of character building in stubbornness. As time went on they substituted human nature for cosmic nature, and then accentuated human nature as conscience. The individual could then define the right for himself, and this sort of individualism was developed with so much skill that it admitted great laxity of morals. Duty commands some things and forbids others, but there are left a great mass of activities that are ethically indifferent. These indifferent matters offered opportunity for these men of conscience to perform what in the eyes of others were crimes (for example, Brutus). Baseness is only what is unconditionally forbidden.

Yet it must not be supposed that the Stoics generally

employed the indifferent as an excuse for moral license. On the contrary, the concept of life as a struggle originated with the Stoics, and from them it passed into the common consciousness of man. There was before them (1) the struggle with environment dominated by a false evaluation, (2) the struggle with effete civilization, (3) the struggle particularly with one's self. The Stoic hero of inner courage and greatness of soul rises above his fellows, not because he gains dominion over the world, but because in indifference to it he isolates himself. He exists in premeditation of doing rather than in the actual doing in which his power would be spent. Still, in the absolute contrast between the good and the evil, in making life a disjunctive, an "Either — Or," duty got a definite and distinct meaning. Duty, according to the Stoics' conception, had not so much the nature of an imperative as of what is suitable, — an act adapted to nature, a consistent and justifiable act. In a manner unknown to antiquity the ethical nature of conduct was thus universalized in the new conceptions of philanthropy, of the universality of God and man, in the tendency to suppress slavery and care for the poor and sick. Nevertheless, as a moral force Stoicism accepted the world as it found the world, and did not attempt to make it over.

The Problem of Evil and the Problem of Freedom. On the questions of moral freedom and evil, the Stoics suffered severe attacks from the Academy and the Epicureans. Alone among the Schools of antiquity the Stoics preached the doctrine of Fate. The demands of ethical responsibility, however, required that the individual should determine his own conduct. To suit these demands the Stoic did not modify his fundamental

conception of Nature, but he tried to justify his position on the ground that the individual expressed the law of nature. His argument may be stated thus: Man is like God; Man is one with God; Man is free. It was also stated on psychological grounds. Man can have one of two attitudes toward the world-law: (1) his performance may be through blind compulsion; (2) his performance may be through an intelligent understanding of the law, in which case he is free. The occurrence of his act is fateful, but it makes great difference to the man whether the occurrence is in spite of him or with his intelligent acquiescence. The occurrence is not an evil in itself; for physical evils are no evils, and things that appear to be moral evils are (1) subservient to the good; (2) merely relative to good; or (3) show that God's ways are not our ways. My will is mine though necessary; my will is mine though it be law. The soul is free when it fulfills its own destiny. God works through man's will. Outer circumstances are only accessory causes, but the main cause is the assent of the will. At the same time the Stoics did not shrink from the logic of their own fatalism. Chrysippus said that only on the basis of determinism could correct judgments of the future be made. Only on this ground could the gods foreknow. Only the necessary can be known.

The Modifications of the Stoic Doctrine after the First Period. The inherent difficulties in the Stoic doctrine and the attacks upon it gave rise to later concession that only further complicated it. (1) The moral ideal was lowered to make a set of rules for the mediocre man, and thereby the Stoics became the originators of the dangerous doctrine of a twofold morals.

(2) By admitting any supposition instead of strict scientific deduction into their theory they introduced probabilism. An absolute personality! An absolute Nature! In order to make either practical the Stoics had to modify both. In the course of time, when new leaders represented the School, there came compromises according to practical exigencies. The teaching of the Wise Man was superseded by instruction how to become wise. The moral idealism was not renounced but the idea of progress was introduced.

(3) The doctrine of Goods was modified. From out the Goods, esteemed as indifferent, there appear Goods as desirable. Yet these were never thought to be Goods in themselves, but were only adapted to further the Good in itself. Such were, for example, the physical Good of health, enjoyment of the senses, etc. On the side of its ideals Stoicism thus was brought into touch with practical life.

(4) A distinction was made concerning those who were not Wise Men. It was recognized that all "fools" are not the same distance from virtue. There are then recognized progressive men, — men who are improving. Apathy is thus modified by a state of progress. Even the Wise Man has in common with others the affections of his senses, such as pain. The Stoic ethical aristocracy became more humane. Nevertheless, the Stoic never yielded this point, viz., that there is no gradual growth in virtue. Virtue is not attained through a transition. It is a sudden turning about.

(5) During the empire Stoicism became merely a moral philosophy, but even in this form it was an impressive presentation of the noblest convictions of antiquity. It prepared moral feeling for Christianity.

The more Stoicism became mere moralizing, the more the Cynic element in it dominated it. In the first and second centuries Cynicism was revived by wandering, garbed preachers, who went about affecting beggary and teaching morals.

CHAPTER XII

SKEPTICISM AND ECLECTICISM

The Appearances of Philosophic Skepticism. We have now traced the history of the positive and dogmatic aspect of the Hellenic-Roman Period through its Ethical Division and far into the Religious Division of the Period. The influence of the ethical movement did not disappear until at least two centuries after the beginning of this era, and the Schools themselves did not disappear until they were abolished by Justinian in 529 A. D. But the Ethical Period may be said to close at the beginning of this era, and even a century and a half before that — about 150 B. C. — its positive and dogmatic character had been lost. Eclecticism appeared in the Schools, and the last one hundred and fifty years of the Ethical Period was in character transitional and eclectic. This was caused by the growth and power of Skepticism, which we have already pointed out as the undercurrent of the entire period. Skepticism was the fundamental frame of mind of the eight hundred years of this time. It was the negative side of the period in contrast with the Schools. Philosophic Skepticism appeared contemporaneously with the rise of the New Schools at the very beginning of the Period, and the controversy between the Schools and Skepticism reached its height about 150 B. C. What was the result? Did philosophy turn, as in the Age of Pericles, back to greater triumphs in speculation? No; the world was no longer virile and no longer possessed the creative im-

pulse. On account of the attacks of Skepticism upon the Schools, philosophy dissolved itself first into eclecticism, and then later by the introduction of new elements from the East was superseded by religion. In the philosophical sense, religion and eclecticism are both skeptical — both have doubts of the ability of the reason to reach truth. Eclecticism shows its Skepticism by doubting any one dogmatic scheme, and therefore it constructs a compromise of all; religion crowns faith in place of reason.

Philosophic Skepticism in these times did not appear except with reference to the doctrines of the Schools. It arose as merely polemical and antagonistic to the Schools' teaching. While the Skepticism of antiquity busied itself with the problem of knowledge, it was superficial compared with modern Skepticism. Ancient Skepticism did not doubt that the object of knowledge existed; it did not doubt that the object of knowledge is external and even material. It assumed that things exist which, to the modern Skeptic, is the problem at issue.

We shall look now at the appearances of philosophic Skepticism, and the effect of this Skepticism upon the Schools in their turning to eclecticism.

The Three Phases of Philosophic Skepticism. These are three somewhat loosely connected appearances of Skepticism, and are determined in their character in large measure by the doctrines which they attacked.

1. **The First Phase of Philosophic Skepticism is called Pyrrhonism** (from about 300 to 230 B. C.). This was a Skepticism *directed against the assumptions of the philosophy of Aristotle*. From the dates above it will be seen to be contemporary with the founding of the Stoic and Epicurean Schools, at the very beginning

of the period. The two representatives were Pyrrho (365–275 B. C.) of Elis and his pupil Timon (320–230 B. C.) of Phlius. When Zeno had begun to teach in the Painted Porch and Epicurus in the Gardens, when Theophrastus had succeeded his master in the Lyceum and Polemo led the Academy, the Skeptic Pyrrho began his personal instruction in the city of Elis. Pyrrho had but little influence. He left no writings, and his doctrine became known to the ancients through his pupil, Timon, who was the literary exponent of this Skepticism. The teaching may be stated in the three following sentences: (1) We can know nothing of the nature of things, but only of the states of feeling into which they put us; (2) The only correct attitude of mind is to withhold all judgment and restrain all action; (3) The result of this suspense of judgment is ataraxia or imperturbability. The Skeptic therefore sought the same internal peace for which Stoic and Epicurean were seeking, but he was skeptical of the Aristotelian metaphysics as an instrument to gain it. The opposite of any conclusion being equally plausible, suspense of judgment is the only peace of mind.

Pyrrhonism reminded the age after Aristotle that the problem of the certitude of knowledge is fundamental and must be settled before any philosophy can be constructed. The School was short lived, and people disposed to be skeptical joined the Academy.

2. The Second Period of Philosophic Skepticism—The Skepticism of the Academy (280–129 B. C.). The Middle Academy and its Skepticism was directed particularly against the Stoic teaching that an “apprehensive presentation” guaranteed its own truth by the conviction of immediate certainty. The two most distin-

guished representatives of this Skeptical period of the Academy were Arcesilaus (315–241 B. C.) and Carneades (214–129 B. C.). Carneades must be mentioned particularly as a genius and a philosopher of great personal influence. "He was the greatest philosopher of Greece in the four centuries from Chrysippus to Plotinus; indeed, in ability and depth of thought he surpassed Chrysippus."¹ Carneades was the most formidable opponent of the Stoics. He had listened to the Stoic lecturers, had studied their writings, and had refuted them on their own grounds in brilliant lectures of his own.

The Skepticism of the Academy arose somewhat in this way. The rivalry of the Porch and the Older Academy had grown apace and had been a battle between two dogmatic Schools. The Academy was being worsted, its ancient spirit was waning, and it had gradually deserted speculation for ethics. Under Arcesilaus it was provoked to new life by the aggressive dogmatism of the Stoics. Speculation, which it had ignored, it now began to antagonize openly. Arcesilaus, in directing his attack against the doctrine of "apprehensive presentation" of the Stoics, came to conclusions but slightly different from Pyrrho. Carneades laid out for himself a twofold task: (1) to refute all existing dogmas, and (2) to evolve a theory of probability as the basis for practical activity. He applied his Skepticism not only to speculation, like Arcesilaus, but also to ethics and religion.*

¹ A. Hicks, *Stoic and Epicurean*, pp. 322 ff.

* Read Grote, *Plato*, vol. iii, pp. 482–490, for the interesting sophistical problems of the Liar, the Person Disguised under a Veil, Electra, Sorites, Cornutus, and the Bald Man.

The Academy did not fully adopt Skepticism, but used it as a weapon against the Stoics. The Platonic tradition was kept alive within the School, and Skepticism made no advance in the Academy after Carneades. It did not even continue in the path marked out by him. In the next generation the Academy became eclectic.

3. The Third Period of Philosophic Skepticism — Sensationalistic Skepticism (during two centuries or more of the Christian era). The chief representatives were Ænesidemus of Cnossus (first century A. D.), Agrippa (about 200 A. D.), and Sextus Empiricus (about 200 A. D.).

This phase of Skepticism was represented mainly by physicians, with arguments based upon empirical physiological grounds. When the Academy passed from Skepticism to eclecticism, Skepticism became centred in Alexandria. For two centuries before Galen (131–201 A. D.) great discoveries had been made in medicine, but the meaning of the discoveries had not been apprehended. There was a general feeling among physicians of that time that there is no such thing as scientific certainty; and skeptical arguments were constructed, based on the empirical discoveries of the scientific circle of Alexandria. While the arguments of the Academy were mostly formal attacks against the Stoics, this Skeptical School of physicians returned to Pyrrhonism, immensely reinforced with scientific material. It strove in vain to disassociate itself from the Academy, for it used in one way or another the formal arguments of the Sceptics of the Academy. In his eight books on Pyrrhonism, Ænesidemus developed the reasons which induced Pyrrho to call in question the possibility of

knowledge. These are known in philosophy as the ten "tropes," or ten ways of justifying doubt.¹ They were badly arranged by Ænesidemus and reduced to five by Agrippa.²

The Last Century and a Half of the Ethical Period. (150 B. C.—1 A. D.). **Eclecticism.** — About 150 B. C. the Ethical Period became eclectic. After 150 years of passionate controversy the Schools began to compromise their differences and fuse into one another. They no longer emphasized their differences, but began to point to their common ground of unity. This tendency to fusion applies only to the Lyceum, the Academy, and the Porch. The Epicurean School was never a party to this eclecticism and always remained relatively stationary. The fusion occurred only in the teaching of the Schools and not in their organization. Externally the Schools remained separate bodies for six hundred years longer. In the second century Hadrian and the Antonines endowed separate chairs for them in the University of Athens. They were not abolished as Schools until 529 A. D., by Justinian. Internally their independent growth lasted only during the two centuries down to the year 150 B. C. At this time their theoretic mission had been completed. Their internal history from 100 B. C. to 529 A. D. was one of compromise and adjustment. The year 150 B. C. is therefore important. At this time the records of the Schools stop, controversy abates, Stoicism and Epicureanism are introduced into Rome and fusion of doctrines begins.

The Stoic School was the first to incline to eclecticism. Its own doctrine was a kind of fusion of incoher-

¹ For a statement of these tropes, see Weber, *Hist. of Phil.*, p. 153.

² Ueberweg, *Hist. of Phil.*, vol. i, p. 216.

ent parts, and among the Schools it could most easily welcome new doctrines. About 150 B. C., under the lead of Panætius and Posidonius, it adopted many of the Platonic and Aristotelian teachings, tempered its own ethical rigorism, and extended its scientific interests. At the same time the Peripatetics of the Lyceum united the pantheism of the Stoics to their own theism. After the death of Carneades in 129 B. C. the Academy turned from Skepticism back to the Platonic tradition, but it was a meagre Platonism adulterated with many foreign elements. For example, Antiochus of Ascalon taught Cicero from the Academy at Athens in the winter of 79-78 B. C. that Platonism and Aristotelianism were only different aspects of the same doctrine.

There were two factors that prepared an easy way for the rapid spread of eclecticism. One was the growing Skepticism that was so fundamental in Hellenism, and the other was the adoption of Hellenic culture by the Romans. Eclecticism is, after all, only another form of Skepticism. Both exhibit the spirit of undecided conviction. Neither has regard for the bonds of tradition, for both regard the individual superior to every tradition or system. Eclecticism, indeed, attempts to reconcile differing systems; but in doing this it casts a doubt upon the infallibility of them all only to a lesser degree than Skepticism. The spread of eclecticism was therefore only an extension from Greece of the skeptical spirit upon the world, and the Roman world gave a glad welcome to such a spirit. The Roman character was naturally eclectic. After his first aversion the Roman was hospitable to all philosophies and religions. In his practical way, undisturbed by philosophical hair-splittings, he selected from the different systems what

was suited to his practical needs. Eclecticism found fertile ground in Roman civilization.

In the Schools after the year 150 B. C. there appear many notable names — notable not because they contributed to the theoretic advance of philosophy, but for some other reason. In the Stoic School were Panætius, Posidonius, and Boëthus ; and later Seneca, Epictetus, and Marcus Aurelius. Among the Academicians are Philo of Larissa and Antiochus ; among the Peripatetics of the same century is Andronicus ; and among the eclectic Platonists Plutarch is especially to be named ; these were all eclectics. The only one in this group of eclectics whom we shall have time for a passing examination of is Cicero.

M. Tullius Cicero (106–43 B. C.) listened to Greek philosophy in all the Schools in Athens and Rhodes. He read a good deal of Greek literature, so that he had much philosophical material at his command. He did not show much discretion in his selection of his material, but he displayed a good deal of tact in using what the Roman people would receive. The Greek mind spoke to the Roman through Cicero's voice almost as though the Roman were speaking for himself. It must be admitted that Cicero's acquaintance with Greek philosophy was on the whole superficial, yet he was able to express certain aspects of Greek philosophy with clearness for contemporary Latin readers and for many generations succeeding them. He prided himself in his ability to discuss both sides of a question without himself arriving at a decision — after the manner of the Middle Academy, of which he inscribed himself as a member. His books appeared in rather rapid succession.

Cicero does not therefore owe his prominence as a philosopher so much to his own profound independence of thought as to his skill in translating Greek thought to the Roman people. His metaphysics is an eclecticism that is at bottom a skepticism. In view of the existing philosophical warfare, he despaired of metaphysical or absolutely complete knowledge. Yet upon ethical and religious questions he spoke in no undecided manner, for in these realms he felt that we have more than merely probable evidence. Since he was unable to refute Skepticism in a scientific way, he took refuge in the immediate certainty of consciousness in all matters that pertain to morals and religion. There are certain ideas common to all men. These have not so much been taught to all men by nature as they are inborn in all. They are convictions implanted in us; there is a common human consciousness from which they are derived, and they are confirmed by universal opinion. Ethical and religious consciousness thus rests on immediate certainty. Man has the innate ideas of duty, immortality, and God. Our belief in God's existence is supported by the teleological argument for Providence and divine government. The high dignity of man rests upon this innate conviction of freedom and immortality. Cicero shows his eclecticism by moderating the Stoic doctrine of virtue: virtue in itself is *vita beata*, but virtue plus happiness is *vita beatissima*. Unoriginal and eclectic as Cicero's philosophical position may be, it is of great importance to the student of Roman history.

CHAPTER XIII

THE RELIGIOUS PERIOD (100 B. C.-476 A. D.)

The Two Causes of the Rise of Religious Feeling. There were two causes for the turn of the time from its interest in individual practical ethics to religion. The first was an inner cause within the nature of the ethical philosophy of the Schools. The rise of the religious and the supernatural was the culmination of the undercurrent of skepticism in the validity of reason, which we found growing rapidly in the Ethical Period. The more the Schools grew alike in their teaching, the less were they able to assure their disciples of any certain insight into virtue and happiness. The Ethical Period ended in eclecticism, and this was the impeachment of the authority of each School. The Schools examined their dogmatic assumptions. The fundamental inner conviction grew stronger that the intellect of man is self-inconsistent : so inconsistent as to be undependable ; so inconsistent as not to vouchsafe man the virtue and happiness which the Schools had promised. As Skepticism became more strongly intrenched, the imperturbable self-certainty of the Wise Man became shaken, the Ethical Period disappeared, and the Religious Period was born. Belief in the authority of the supernatural superseded belief in the authority of the reason.

The second cause may be called external, and was the introduction of many eastern religions into the empire. It has been common to exaggerate the vices of the

Romans of the first Christian centuries, and to point to the corruption of the times as the cause of the great rise of religions.* No doubt, in the city of Rome and other large cities the populations were very licentious and corrupt. But this was not the case with the people in the small municipalities and the country. The people were united in peace under one government. There was great commercial prosperity and widespread travel. Education prospered. The religion of the Romans, however, long since decadent, had become an object of derision. All faith in it had been lost, and magicians and romancers had a large patronage. The inner life of man demanded some external spiritual authority to satisfy it, and, finding it could not be satisfied in the realm of sense, turned to the supersensuous. It was an age of universal superstitions, reported miracles, and the multiplying of myths. In the realm of the religious emotions everything was in flux. Even the Greek philosophies — the Stoic, the Platonic, the Cynic, and the neo-Pythagorean — show it in their emphasis upon renunciation in practical life. In place of the Grecian love for earthly existence, a longing for the mysterious was growing into a feverish desire for strange and mysterious cults. A great religious movement possessed the nations of the empire, and into Roman civilization of the first century A. D. there streamed many new religions. From the Orient came the Mithra, Magna Mater, Star Worship, Isis and Osiris, and many others. These mingled with the western religions, and their rivalry was energetic for the possession of men's spirits. The Roman people were hospitable to all religions, and Rome became a religious battleground. With the in-

* Read Dill, *Roman Society*, first three chapters.

terest turned from earthly to heavenly things, salvation from trouble seemed to lie in the supernatural.

The Need of Spiritual Authority. Thus the complacent Ethical Period gave way to the cry for some authority in morals and science. Man was no longer confident that he could attain present happiness or his soul's salvation by his own strength. He turned for help both to the religious tradition of the past and to the revelation that might come to him in the present. The authority in either was practically the same; for the past was only the crystallization of an ever-present divine spirit. Yet present and past revelations differ in their credentials: the present revelation is an immediate illumination of the spirit; the past is presented in historic records. The Alexandrian school accepted both forms of revelation as the highest source of knowledge.

The demand for supernatural authority found expression in many curious ways. It is notorious that at this time the writings and oral traditions of the past were greatly interpolated. The philosophers of the first century thought that they themselves could get a hearing only by inserting their own doctrines into the writings of Plato, Aristotle, and other heroes of the past. Thus the neo-Pythagoreans invented a halo of wisdom for Pythagoras in order to give their own sect its credentials. The demand for authority culminated in the attempt to trace the entire civilization of the time to some religious source. Philo on the one side, and the Gnostics on the other, found that Greek and Hebrew history have a common religious origin. Greek thought was found in the Oriental writings. The Greek sages were placed by the side of the Old Testament heroes. The canon of the Christians is full of cross-

references — the Old Testament giving historical authority to the New Testament, the New Testament giving to the Old Testament the support of immediate revelation. There came into vogue what was called “allegorical interpretation,” according to which an historical document could be given two interpretations (or more) — a literal interpretation and a spiritual interpretation. The documents were supposed to have a body and a soul. The literal interpretation was of the body of the documents and suitable for the people ; the spiritual interpretation was the more liberal interpretation of the soul of the document and suitable for philosophers.

At the same time a vast number of writings appeared as historical revelations. It was necessary to separate the true from the false, but this could not be done by the individual without injuring the very principle upon which revelation was supposed to rest. Consequently all knowledge was generally regarded as revelation. For example, Plutarch and the Stoics divided revelation into three classes : poetry, law, and philosophy. Although Plutarch disclaimed open superstitions, he nevertheless accepted as true all sorts of miracles and prophecies. The later neo-Platonists are also examples of the great body of those who made no discrimination as to what revelation is true. The Christian church may be said to have been alone in making a criticism of the records, and in setting up as criteria tradition and historically accredited authority. As a result of its criticism the Christian canon was finally decided upon, and the Old and New Testaments were accepted as alone inspired. The rivals of the church — the Alexandrian philosophies, especially neo-Platonism — had no organization that could decide upon a canon. They

were consequently at a disadvantage, but they felt no need of an infallible historical authority or of historical criticism. Revelation to them was any immediate illumination of the individual. The individual man who comes in contact with the Deity has possession of the divine truth. Although only few attain the truth, and these only at rare moments, there is nevertheless no way of determining what is fictitious and what is true. This difference in the conception of inspiration between the neo-Platonists and the Christians is important to note, for it marks an important difference in the two greatest intellectual movements of the next thousand years. The church fixed revelation on the basis of historical authority, and this revelation became the source of the scholasticism of the Middle Ages; neo-Platonism left the individual man free to get revelation from any source through his own personal contact with the divine, and this was the basis of the mysticism of the Middle Ages.

The Rise of the Conception of Spirituality. We have seen that out of the widespread cry for spiritual help came the demand for spiritual authority. There is also another result, — the increased importance in history of the spiritual personality. The men of the past became heroes, the great men sanctified and surrounded with myths. Hero worship, ancestor worship, the worship of the genius of the emperor inaugurated by Augustus, were part of this movement. Disciples began to have unconditional trust in their masters, and in neo-Platonism this worship culminated in veneration for the leaders of the School. This movement appears in the grandest form in history in the impression of the wonderful personality of Jesus Christ.

The next step was to regard personality as the revelation of the divine Logos. Personality is the cosmic reason. Nature and history are kinds of general revelations, but special revelations require great personalities — Moses, the prophets, the Greek scientists, and especially Jesus who was the Messiah, the Son of God. The power that these personalities exhibit must be a revelation, and not the working of the human reason, for the human unaided reason deals only with sensations, and is incapable of gaining divine truth. The reason needs the divine to illuminate it. The great personalities are therefore the repositories of powers that make them different from ordinary men. Their revelations are above, and sometimes opposed to, the conclusions of ordinary reason. Thus personalities themselves are divided by religious dualism, and in them the human and divine are far apart. Moreover, the more great personalities were apotheosized, the more the common run of humanity was depreciated. Then distinction was made between great personalities. At first, when authority was sought everywhere, all great personalities were supposed to have divine revelation; later, when the lines were drawn between the Christian and other beliefs, only the Christian leaders were considered by the Christians to be instruments of the divine.

This spiritualizing of historical personalities laid the emphasis more than ever before upon the dualism in all human beings. All men are ensnared in the world of sense, and they can attain knowledge of the higher world only through the illumination of their higher natures. Aristotle alone among the Greeks had had a clear conception of spirituality, but he had conceived spirituality as applied solely to God. He had not con-

ceived God to be a person. But the Stoic antithesis of reason and what is contrary to reason, and the Platonic antithesis of the supersensuous and the sensuous, had marked off *in man* the inner personal nature of man as withdrawn into itself and set over against his sensuous nature. The more this ethical dualism became a religious dualism, the more the conception of spiritual personality was extended to all human beings. Its most refined expression was in the Christian conception of the soul.

The Revival of Platonism. The Platonism of the Academy had had little influence in the Ethical Period and its tradition had been barely kept alive. The Middle Academy had been skeptical and the New Academy eclectic. The Religious Period, on the other hand, was thoroughly Platonic, and Plato from this time until the Crusades became the ruling philosophical power. For three hundred years his influence had been nothing; for the next twelve hundred he dominated men's minds, so far as any philosopher could in religious times. When the Wise Man vanished from philosophy, and the expectation of spiritual blessedness took its place, when Skepticism drove men from ethics, first to eclecticism and then to theology, when philosophy passed to mysticism — then did Platonism, with its antithesis between the sensible and the supersensible, come to its own. Of all the historical philosophies it could best amalgamate all religions. Platonism (1) absorbed Oriental religions, (2) furnished a didactic form for Christianity, (3) recreated itself into the mystic neo-Platonism. The world-longing for the supernatural found its best medium in Platonism. When the Wise Man vanished, the mystic priest appeared.

The Divisions of the Religious Period. Out of the seething religious times at the beginning of this era, there emerged two distinct currents of thought that extended through the entire length of the Religious Period, and carried down into the Middle Ages all the culture that the mediæval possessed. The two movements were (1) the religious philosophies of the still persistent Hellenic civilization, and (2) the new-born Christian religion, which was destined to determine the future of the western people. If we scrutinize these two movements we shall find that each has its introductory and its development stages, and at the point of division in each stands a great leader who was instrumental in bringing about the transition. The great neo-Platonist, Plotinus (204-269), marks the division line in the Hellenic movement; the Christian, Origen (185-254), marks the division line in theological Christianity. While these men were contemporaries, we shall take, for various reasons, the year 200 as the date of division of the Christian movement, and the year 250 as the date of division of the Hellenic movement. The first stage of each movement we shall call its Introductory Period, and the second its Development Period.

During their Introductory Periods the two movements tried to draw together under the influence of the philosophical eclecticism which colors this time. In their Development Periods the two movements draw apart, become closed and mutually repellent. The historical developments of the two movements from beginning to end are very different. The tide of Hellenism floods with Plotinus, its greatest representative, and after him there is a gradual ebb. On the other hand, Christianity shows a continuous growth, both internally and externally, and

the mighty Origen only points to the mightier Augustine. Both movements finally merge in Augustine.

I. Hellenic Religious Philosophy. II. Christianity.

losophy.

1. Introductory Period (100 B. C. -250 A. D.).

(1) Greek-Jewish philosophy of Alexandria.

Philo (25 B. C.-50 A. D.).

(2) Neo-Pythagoreanism (100 B. C.-150 A. D.).

2. Development Period (250-476).

Neo-Platonism.

Plotinus (204-269).

Jamblichus (d. 330 about).

Proclus (410-485).

1. Introductory Period (31 A. D. -200 A. D.).

(1) Period of simple faith (until the 2d century A. D.).

(2) Period of Earlier Formulation of Doctrine.

Apologists (2d century).

Gnostics (2d century).

Old Catholic Theologians (2d and 3d centuries).

2. Development Period (200-476).

(1) Period of Actual Formulation of Doctrine.

The School of Catechists. Origen (185-254).

(2) The Œcumenical Councils and the establishment of dogma.

The Hellenic Religious Philosophies. Alexandria and not Athens was now the intellectual centre of Hellenism. The position and history of the city, as well as the character of its population, were most favorable for the mingling of religions and philosophies. In the "university" of this great commercial metropolis the treasures of Greek culture were concentrated and scholastic work was vigorously pursued. Here all philosophies met, and all religions and cults were tolerated. Exhausted Greek philosophy here came in contact with those fresh Oriental ideas which previously, at a distance, had excited the imagination of the Greeks as something mysterious. The result was a new phase of philosophy, — theosophy, comparative religion, or eclecticism of philosophy and religion.

In no instance were the authors of these religious philosophies Greeks. The philosophy of Philo was a Hellenism, but the Hellenism of a Jew. Neo-Pythagoreanism seems to have had representatives from every country except the motherland of Greece. The author of neo-Platonism was born in Egypt. Of the two introductory movements, the Greek-Jewish philosophy accorded more with Oriental life, neo-Pythagoreanism with Greek life. Both go back to the principles that were fundamental in the Pythagorean mysteries.

The Introductory Period of Hellenic Religious Philosophy (100 B. C.—250 A. D.). The Turning to the Past for Spiritual Authority.

1. **The Greek-Jewish Philosophy of Philo.** The Jews lived in great numbers in Alexandria, and many of them were wealthy and influential. In Alexandria the Old Testament had been translated into Greek, and through it the Greeks had become acquainted with the

religion of the Jews. While the Old Testament contained the philosophy of the Jews, these Alexandrian Jews had learned in Alexandria to admire greatly the philosophy of the Greeks. So great was their admiration that they soon conceived Plato to be in their Law and their Law in Plato. They argued that since the Old Testament was their revelation, all the best Greek philosophy must be in the Old Testament. The Alexandrian Jews used Greek conceptions wherever they found them; and this tendency toward eclecticism appeared as early as 160 B. C. in Aristobulus and Aristeas. At that time these Jews used Greek philosophy in interpreting the Old Testament and employed the "allegorical method of interpretation." This eclectic tendency was brought to completion by Philo (25 B. C. -50 A. D.), who was the most notable philosopher of this time. Philo was guided in his eclecticism by some such rules as these: (1) Revelation is the highest possible authority and includes the best of Greek thought; (2) Greek philosophy is derived from the fundamental principles of the Old Testament; (3) Jewish revelation is expressed in symbols, while Greek philosophy is expressed in concepts.

Philo's teaching contains, in unsymmetrical form, both Stoicism and Platonism, and in it can be found the seeds of all that grew up in Christian soil. His philosophy was a bridge from the philosophy of Judaism to Christian theology. It has been called a "buffer" philosophy.

God is the ultimate cause of the world, but He is so transcendent that He can be described only in negative terms. This method of defining God got the name in later times of "negative theology." It was the common

method in these Alexandrian days. God is absolutely inconceivable and inexpressible to man; to Himself He is "I am who am." The goodness of God impelled Him, and His power enabled Him, to create the world. From this point of view Philo is a monist. But in man reason and sense meet. Man's soul is from God, but his sense-body is from matter, and from this point of view Philo is a dualist. Matter is outside God. God is so transcendent that He cannot come in contact with matter, and so He created the world and rules the world through mediators or "potencies." These "potencies" are the same as the Ideas of Plato, the "reasons" of the Stoics, the numbers of the Pythagoreans, the angels of the Old Testament, or the dæmons of popular mythology. The sum-total of God's activity in the world was called by Philo the Logos. Philo speaks of the Logos in two ways: sometimes as the plural number of teleological forces in the world; sometimes as the unity of these forces, "the first begotten of God," "the second God," "the son of God." The Logos represents the first attempt to overcome the dualism between matter and God. The Logos is the high priest standing between God and the world. It is the everlasting revelation of God's presence. Philo's world is made by God and not by others, and is the expression of God's thought in infinite forms and forces. God is not defiled by coming into contact with matter. God gives orders, the Logos obeys. Philo believed in transmigration of souls, and to him the most important problem is, How the spirit can become like God. The answer is (1) by the acquirement of the Stoic apathy, (2) by possessing the Aristotelian dianoetic virtues, (3) by complete absorption in God.

2. Neo-Pythagoreanism. The history of Pythagoreanism is extremely varied. Its body of doctrine from epoch to epoch was continually changing. The only characteristic common to its entire history was its practical tendency toward asceticism and its affiliation with the Mysteries. Let us review the history of Pythagoreanism down to the time of neo-Pythagoreanism. In 510 B. C., at the battle of Crotona, the early band of Pythagoreans was dispersed, and about 504 B. C. Pythagoras died. His scattered followers formed a school centring at Thebes around the philosophy of numbers, and this school lasted until 350 B. C. In 350 B. C. Pythagoreanism no longer existed as a school, for its members had either joined the Academy or formed one of the Mysteries. In 100 B. C. Pythagoreanism again emerged under the name of neo-Pythagoreanism, and this is the body which we meet in the introductory stage of the Religious Period. Alexandria was its centre, but it drew its disciples from every part of the earth. Among them Apollonius alone rises as a distinct figure. He was widely known, for he traveled everywhere as a religious teacher and wonder-worker. Other neo-Pythagoreans were P. Nigidius Figulus, a friend of Cicero, Sotion, a friend of the Sextians, Moderatus of Gades, and in later times Nicomachus of Gerasa and Numenius of Apamea. Another, and rather numerous group, allied to the neo-Pythagoreans, should be mentioned here. These were the so-called Eclectic Platonists, the representatives of whom were Plutarch (50-125 A. D.), and Celsus (about 200 A. D.), the opponent of Christianity. The only important difference between the neo-Pythagoreans and the Eclectic Platonists was that the former referred to Pythagoras as their religious

model, and the latter to Plato. Both were mystical, ascetic, and eclectic.

Neo-Pythagoreanism first became noticeable in the first century B. C., on account of the great number of writings appearing under the names of Pythagoras and Philolaus. About these there arose a large neo-Pythagorean literature,—about ninety treatises by fifty authors. The writings under the name of Pythagoras were, for many centuries, the cause of the misconception of the true teaching of the original Pythagoras. The advent of the neo-Pythagorean literature marks the return at Alexandria to the older systems of thought, and is coincident with the learned literary investigations in the University of Alexandria. The particular revival of Pythagoreanism in the form of neo-Pythagoreanism came at the same time with the renewal of the Homeric form of poetry.

Neo-Pythagoreanism, as its history shows, is the philosophy of a half-religious sect with ascetic tendencies. Its transcendental philosophy was better suited to a people under an autocratic government, and ruled by Oriental traditions, than was the ethical teaching of the four Schools. The system of the ethical Schools arose out of the needs of the individual; but at this time the cry was for an absolute object which transcends both the individual and nature. The demand was for a god who could be served not by sacrifice, but by silent prayer, wisdom, and virtue. There are many points of similarity between the doctrine of Philo and neo-Pythagoreanism. The neo-Pythagoreans were monotheistic, but at the same time they accepted within their monotheism the hierarchy of the gods. They held to the commonly accepted doctrines of their time, viz., the trans-

migration of the soul, the dualism of the mind and body, the mediation of a graded series of celestial beings between man and God. They interpreted God in a spiritual way, but they conceived the ideas in God's mind to be the Pythagorean numbers — just as Philo conceived them to be the Old Testament angels.

The Development Period of Hellenic Religious Philosophy (250–476 A. D.). The Turning to the Present for Spiritual Authority. Platonism and Neo-Platonism. Neo-Platonism is the final statement of Hellenic culture, and the question may be asked, In what form did it present Hellenism? The answer is, It sets forth the Hellenic feeling as *mysticism*. The contribution of Plotinus was the destruction of the classic Greek ideal with its definiteness of form, and was the substitution of a new ideal of soaring spiritual exaltation. One has only to look back to the art, science, and philosophy of the Periclean Age to appreciate how far this last survival of Greek culture had drifted from its original moorings. Nevertheless, neo-Platonism is not so very far distant from that powerful ascetic principle in the Greek mysteries which is one aspect of the doctrine of Plato himself. Neo-Platonism was Platonism exaggerated on this mystic and ascetic side. Plotinus said that he was ashamed that he had a body; that the soul looks on and weeps at the sinfulness of the body; that it is not enough to regulate the body, but that the body must be exterminated. As the voice of Hellenism, neo-Platonism is speaking in an age when consciousness is weighed down with the sense of the enormity of evil and the need of salvation. Neo-Platonism feels that the moral conflict in the human soul is repeated in the universe; that the eternal struggle between matter and spirit goes

on in the macrocosm as well as the microcosm. Plotinus held to the ancient Greek conception of the personification of the powers of nature, of the derivation of happiness from activity, of the supremacy of the intellect over the other faculties. But in accepting the ancient Greek doctrine of the subordination of man to the universe, he conceived man to be absorbed by the universe.

Neo-Platonism and the Two Introductory Philosophies. Neo-Platonism, therefore, shares in the mysticism of the philosophies of Philo and the neo-Pythagoreans. All three teach the transcendence of God; all three were metaphysically monistic and ethically dualistic; all three conceive the existence of intermediaries between God and man. The introductory philosophies sought to build eclectic doctrines, while neo-Platonism became eclectic only in its last phases. Plotinus constructed a positive and original philosophy, and among the three systems the teaching of Plotinus is carefully worked out. Indeed, Plotinus is by far the greatest thinker of this religious period. In the philosophy of Plotinus the relations between man and God are given a more æsthetic character, and the doctrine of immediate experience is more carefully discussed and has greater importance than in neo-Pythagoreanism and the teaching of Philo.

Neo-Platonism and Christianity. Neo-Platonism and Christianity have one thing at least in common. They have the same problem, — how to spiritualize the universe. This was the problem that both Plotinus and Origen attempted to work out. With the development of the consciousness of spiritual personality and the need of a revelation, the Divine seemed to both to be correspondingly farther away. God is unknown and

incomprehensible, and so pure that He cannot come in contact with earthly existence. What, then, is the bond between the heavenly and the earthly? From the point of view of cosmology and of ethics, neither succeeded in overcoming the dualism. The sensuous was regarded as alien to God, and as a thing from which the spirit must free itself. Metaphysically their efforts to construct a spiritual monism were more successful, but their efforts were along different lines. The Christian conceived the universe of God and matter to be bound together by the principle of love; the neo-Platonist, by a series of countless grades of beings in diminishing perfections from the All-perfect. Then again, to the neo-Platonist the question of the return of man to God was a question of the personal inner experience of the individual; to the Christian theologian it was included in the larger problem of the historical process by which the whole human race is redeemed. Thus the metaphysical solution of each works out differently and with different factors.

Both neo-Platonic and Christian theology tried to prove that their respective religious convictions were the only true source of salvation. Both originated in the Alexandrian School. Christian theology was preceded by the fantastic system of the Gnostics, as Plotinus was preceded by the Pythagoreans and Philo. In their development the differences between the two appear. Christianity was supported by a church organization which had an internal vitality and a regulative power; neo-Platonism was supported and regulated by individuals, without organization, who had assimilated every faith. Christian theology was founded on a faith that had already expanded, while neo-Platonism was at the

beginning an erudite religion that tried to develop an extended faith and, incidentally, later to assimilate other cults. Outwardly neo-Platonism, as the final stand of the pagan world to save itself from destruction, was unsuccessful in that it failed to perpetuate itself as an organization. Really it achieved a marked success. Not only did it live a long life of two hundred and fifty years, but it also lived in the development of its antagonist, Christianity. For neo-Platonism, by the irony of fate, was one of the important factors that entered into the building up and strengthening of Christianity. In its lingering death-struggle Hellenism was creating the conceptions that the Christian, Augustine, later employed in shaping Christian theology for the Middle Ages.

The Periods of Neo-Platonism.

- (1) The Alexandrian School — about 240.

Neo-Platonism presented as a Scientific Theory.
The leader was Plotinus (204 – 269).

- (2) The Syrian School — about 310.

The Attempt to Systematize all Polytheisms.
The leader was Jamblichus (d. about 330).

- (3) The Athenian School — about 450.

The Recapitulation of Greek Philosophy.
The leader was Proclus (410–485).

The Alexandrian School. The Scientific Theory of Neo-Platonism. The Life and Writings of Plotinus (204–269 A. D.). Plotinus was born in Lycopolis in Egypt, and received his education in Alexandria, under Ammonius Saccas, who was Origen's teacher. He campaigned with the emperor, Gordian, against the Persians, in order to pursue scientific studies in the East. He was especially interested in the Persian religion. In

this way Plotinus became acquainted at first hand with the mysticism of the Orient. In 244 he appeared at Rome as a teacher, and was received with great éclat by the people, and in the highest circles he gained the most reverent recognition. His school contained representatives from all nations and from almost every calling, — physicians, rhetoricians, poets, senators, an emperor and empress. Plotinus lived in a country estate in Campania, and he almost succeeded in inducing the emperor to found a city of philosophers in Campania. It was to be called Platonopolis and, with Plato's Republic as a model, it was to be an Hellenic cloister for religious contemplation. The literary activity of Plotinus occurred in his old age, and he wrote nothing until after he was fifty. His works consisted of fifty-four *Corpuscles* which his pupil, Porphyry, combined into six *Enneads*. For the next three hundred years his school became the centre of the Hellenic movement — the centre of science, philosophy, and literature. The literature of neo-Platonism was enormous, on account of the many commentaries on the philosophy of Plato within the neo-Platonic circle.

The General Character of the Teaching of Plotinus. There is a great division of opinion about the value of the teaching of Plotinus, for he drew his philosophy only in the broadest outlines, and he made no attempt to advance from a general view of the world to exact knowledge of it. Intellectually his philosophy is an abstraction; and yet emotionally, in an intimate way, it touched deeply an age weary with culture. Thus one can see how the actual achievement of Plotinus was small, but how at the same time its force and influence was very great. It was a religious teaching which rose

to magnificent heights of contemplation from miserable intellectual surroundings. Nevertheless, the philosophy of Plotinus was an extreme form of intellectualism — it was an intellectual ennobling and transforming of religion. The earlier philosophy had supported the happiness of the individual by offers of infinitude ; but Plotinus thought of the individual as never isolated from the Infinite, but as always longing for the Infinite. Fellowship with God is knowledge of Him, but it is knowledge of a peculiar kind. It is enthusiasm, intuition, ecstasy. There is a chasm between man and God, which Plotinus would bridge by placing reality so deeply within consciousness as to annihilate all antitheses and contradictions. Thus this deep reality below consciousness is cosmic and not human ; and the religion of Plotinus is cosmocentric and not anthropocentric. Plotinus intensifies and summarizes Greek culture in order to consolidate and defend it. But in thus thinking out the Greek conceptions to their logical completeness, those conceptions collapse.

The Mystic God. There are two characteristics that distinguish the mystic God of Plotinus.

1. The first characteristic is the supra-consciousness of God. God is the indefinable, original Being who is above all antitheses. He is *supra*-everything, even *supra*-conscious. Nothing can be attributed to Him, not even thought or will, for these imply two elements and God is a unity. Any description of Him must be in negative terms (“negative theology”). If we speak of Him as the One, the First, the Cosmic Cause, Goodness, or as Light, we are only relatively and not really describing Him. God is present in all, yet He is not divided ; He is the source of all, and yet He himself is

perfectly finished. In his conception of God as compared to the world, Plotinus added the realm of the supra-conscious and the sub-conscious to the conscious.

2. In the second place Plotinus conceived God in His relation to the world in the terms of *dynamic pantheism*. This is a pantheism of a peculiar type. God does not create the world; the world is not the act of His will; nor is the world the result of a transference of part of His nature. In ordinary pantheism the world is a diffusion of the substance of God and the whole is static. Not so in the teaching of Plotinus! God permeates the world by His activity, and the world is dynamic through and through. But this dynamic activity of God must not be conceived as an historical or time process. *The process is timeless. It is a process of essence or worth.* The grades in the process are those of *significance or value*. All are within the all-embracing unity of God and each particular draws its life from Him. *This is called the theory of emanations.* Plotinus used the figure which mystics have always employed in this connection, — the figure of the sun and its rays of light in the darkness. The rays become less and less intense with the increasing distance from the Godhead, until they end in darkness. The process is an overflowing from the Godhead in which the Godhead remains unchanged.

The Two Problems of Plotinus. Starting with this conception of the Godhead as a dynamic contentless Being, Plotinus is bound to explain the world of sense-phenomena. His problem is twofold: he must explain the sequence of phenomena from the Godhead, which is the metaphysical problem; he must explain how man, living in the world of sense, can rise to communion with

the Godhead, which is the ethical problem. Metaphysics and ethics are to Plotinus in inverted parallelism.

The World of Emanations. — **The Metaphysical Problem of Plotinus.** The aim of Plotinus in this is to construct a metaphysical monism out of the dualistic factors which had so long been present in Greek thought. The two fundamental principles upon which he raised his structure were (1) his dynamic series of emanations, and (2) his conception of matter as entirely negative. The highest Being, God, by an excess of energy or goodness, has the natural impulse to create something similar to himself. This creative impulse exists in each creature in turn and the movement propagates itself. Stage is added to stage in a descending series, until the impulse dies out in non-Being as the limit. The ordinary pantheism of co-existence of phenomena is transformed into a succession of stages of values, and all make up a harmony of more or less distinct copies of God. There are three steps in which the process of emanation proceeds, — spirit, soul, and matter.

The Spirit or Nous is the first emanation from the One in point of significance. It is the image of the One sent forth by its overflow of energy. This image involuntarily turns toward its original, the One, and in beholding it becomes Spirit, Nous, or intellectual consciousness. It turns to the One and recognizes itself as the image of the One. Thus, in the first degree away from God, the duality of thinker as subject, and of the thing thought as object, appears. The unconsciousness of the One is thus contrasted with consciousness, and the dual nature of consciousness is thus brought out; and for the first time an exact formulation of the psychological conception of consciousness is given.

The Nous is a unitary function of the One, like the Logos of Philo. At the same time the Nous contains within itself, as content, the Platonic Ideas or archetypes of individuals. These Ideas are not mere thoughts, but have their own existence. The Nous is their unity, however, just as a unity exists for the theorems of a science. These Ideas are pure intellectual potencies and the final causes of the world of nature.

The Soul is the second degree removed from the One. It stands in the same relation to the Nous as the Nous to the Godhead. The Soul belongs to the world of light, but it stands just on the boundaries of the world of darkness. It is the image of an image and therefore doubly dual, — it consists of a higher or world-soul and the lesser souls. The world-soul is divided into two forces, — the formative power of the world, and the body of the world. Individual souls are divided into the supersensible or intellectual soul (the part that has pre-existence and undergoes metamorphosis), and the sensible part which has built up the body as an instrument of its working power. The soul is present in all parts of its body. The individual souls are called *plastic forces*.

Matter is the emanation which is most distant from the One. The Nous is the emanation of the One, the world-soul is the emanation from the Nous, individual souls are a kind of intermediate emanation from the world-soul, and matter is the emanation of the individual souls. That is to say, the world-soul, with the forces that are native to it, generates matter and then, by uniting itself through its forces with matter, produces the world of corporeal things. *What is the character of matter* with which the world-soul forms this union?

It is space. Space conditions all earthly existence. It is the same as Plato's conception of the absolutely negative non-Being and the merely possible. It is absolute sterility, entirely evil and devoid of good. Matter has no dualistic independence of the One. *What is the character of the nature world?* It has the same character and quality as the formative forces that unite with this negative matter—it is no more and no less eternal. The world of nature to Plotinus is one of magic, and not merely teleological. He says that the heavens are the union of a perfect soul with matter; the stars are the visible gods united with matter; the powers of the air and sky are dæmons, which mediate between the stars and the souls of men, united with matter; the body of man is the human soul united with matter; inorganic nature is the lowest of the plastic forces united with matter. Wherever there is matter (space), there is found imperfection and limitation and evil. Man as an individual is sympathetically and mysteriously bound to all parts of the universe. Scientific investigation of nature is entirely ruled out by this neo-Platonic teaching. It never could be the instrument for penetrating a magical universe. Faith and superstition take the place of science, and prophecy alone undertakes to solve nature's riddle.

The world of nature is thus broken in two. In one sense it is bad, ugly, and irrational. In another sense it is good, beautiful, and rational, because it is formed by the souls that enter into it. In opposition to the Gnostics Plotinus praised the harmony and beauty of the world, and promulgated his metaphysics of the beautiful as a last farewell of Hellenic civilization. Beauty is not composite, but the simple Idea of worth shining through

the world of sense. Beauty is from the inner and for the inner. Art does not imitate nature, but expresses the reason; it supplements the defects of nature and creates something new. Yet the world of nature is beautiful, because down to the lowest deeps it is permeated by the divine.

The Return of the Soul to God. — The Ethical Problem of Plotinus. In his discussion of moral conduct Plotinus started from the point opposite to that of his metaphysics. He looked from the point of view of man up the series which descended from the Godhead. Men immersed in matter have nevertheless a share in the divine life, and their goal is independence of the world. They must free themselves from sense. Man's ethical task is to separate the two worlds and to turn away from the material, not only in its abnormalities but in every way. The practical virtues have little value in such a sublimation of the soul, for these only bind the soul more closely to the world of matter. The political virtues are only a preparation by which the soul learns how to be free from sense. The intellectual virtues are necessary, but the goal of salvation is not reached by knowledge alone. "The wizard king builds his tower of speculation by the hands of human workmen till he reaches the top story, and then he summons his genii to fashion the battlements of adamant and crown them with starry fire." Out of the mental condition of contemplation the soul will rise on the wings of ecstasy to the God from whom it came. The call of Plotinus is to the ascetic life. The development required is that of spirituality. Ethically Plotinus' doctrine is dualistic, because it requires the rejection of matter as evil. The return is not an evolution nor an innovation in which

reform of the old world is demanded. There is no individual progress, but a penetration into the foundation of things. But what incentive has man to undertake this return? What arouses him from his sleep? Not sense-perception nor reflection, but his love for the beautiful. The innate impulse of Platonic love turns the soul away from matter to the illuminating Idea. He who has an immediate recognition of the pure Idea is gaining the higher perfection. Only when man is in ecstasy — an ecstasy which transcends every subjective state — does he get complete contact and union with God. In such a moment of consecration he forgets himself and becomes God. This final step never comes unless God himself illuminates the soul by a special light so that it can see God. This final state comes only to few souls, and to those but seldom.

The Syrian School. — The Systematizing of Polytheisms. — Jamblichus. This school existed about a generation after the death of Plotinus. Its founder was Jamblichus (d. about 330), whose teacher was Porphyry, the pupil of Plotinus. Jamblichus was a Syrian, who got his instruction from Porphyry at Rome, and then went back to his native country to set up for himself a school of neo-Platonism. He soon became revered as teacher, religious reformer, and worker of miracles. He wrote commentaries on Plato, Aristotle, and the theological works of the Orphics, Chaldeans, and the Pythagoreans. Among the crowd of his enthusiastic disciples, one notes the names of the Emperor Julian and Hypatia.*

The neo-Platonism of Jamblichus contained no new point of view. Metaphysically and ethically his teach-

* Read Charles Kingsley, *Hypatia*, a novel.

ing was identical with that of Plotinus. He tried to complete the religious movement by coördinating all cults, excepting Christianity, into a unity. This was an eclecticism by which Jamblichus came naturally, for Syria was a land where eclecticism thrived. It was here that Gnosticism had its stronghold. With free eclectic hand Jamblichus filled in all the intermediary grades between the Godhead and man with the multitude of gods of all religions. In his system he placed 10 supra-terrestrial gods, 365 celestial beings, 72 orders of sub-celestial beings, and 42 orders of natural gods. To find places for them all, he had to increase the number of intermediaries; and to systematize this complex polytheism, he employed the Pythagorean numbers. His theory shows how persistent was the Hellenic civilization.

The Athenian School. — Recapitulation. — Proclus. The Syrian school failed to restore the old religions, and we find neo-Platonism, after revivals here and there, again at Athens. The city that had been the original sanctuary of Greek culture was the last stronghold of Hellenism.

The Athenian school made its appearance about 410, and its leading representatives were Plutarch, Syrianus, and Proclus. Proclus (410–485), the pupil of Syrianus, was the most important representative of the Athenian school, and he may be said to have uttered the last word of dying Hellenism. Born at Constantinople, of a Lycian family, he received his education at Alexandria; and when he became leader of the school at Athens, he received the extravagant worship of his pupils. Connected with the Athenian school were the great commentators, Philoponus and Simplicius, whose works on

Aristotle became of great value to later times. Their erudite compilations stand out sharply against the imaginative speculations of their age. In connection with this school Boëthius must not be overlooked. He was a neo-Platonist who called himself a Christian, and he was an important figure in the history of education. His translations and expositions of Aristotle's logic and of the *Isagoge* of Porphyry were very influential in the Middle Ages.

Proclus was a theologian like Jamblichus, excepting that he tried to put theology upon a philosophical basis. By means of the dialectic he sought to systematize the entire philosophical thought of the Greeks. His insatiable desire for faith was accompanied by wonderful dialectical ability, with the result that his teaching was an intricate formalism united with mythology. He carried out his dialectical plans to the minutest detail. He drew the materials of his system from both barbarians and Greeks, and he himself had been initiated into all the Mysteries. Every superstition of the past and present influenced him, and in framing a universal system he did not feel satisfied until every transmitted doctrine had found a place in that system. He was the systematizer of paganism and its scholastic. He conceived that the fundamental problem was that of the One and the Many, and that the One is related to the Many in three stages, — permanence, going-forth, and return. The Many as a manifold effect is similar to the unity of the original cause and yet different from it. Development is the striving of the effect to return to the original cause, and this strife for a return to God was illustrated by Proclus in every realm of life, and he repeated it again and again in application to every detail. He conceived that the de-

velopment of the world from the Godhead was continually going through this triad system of change. His philosophy, however, shows no originality other than being an ingenious formal classification in which every polytheism found a place.

CHAPTER XIV

PATRISTICS. — THE HELLENIZING OF THE GOSPEL

The Early Situation of Christianity. The Orient was the source of the Gospel, as of the other religions of this time. The power of Christianity lay in the spontaneous force of its pure religious feeling, with which it entered the lists for the conquest of the world. Christianity was not a philosophy, but a religion. It appealed to a different class than did the Alexandrian schools. The lower class received it first, and so the questions of science and philosophy occupied the early Christians but little. They were neither the friends nor the foes of Hellenism, and they took no interest in political theories. The Christian society was a spiritual cosmopolitanism, which was inspired and united by belief in God, faith in Christ, and in immediate communion with Christ. Conviction of the Second Coming of the Lord determined the conduct of the early Christians. Indeed, that moral reformation and moral conduct were the dominating aims of the Christian communities is proved by the following facts: the documents dealing with Christian life of that time are almost wholly moral; the discipline upon the members was for moral and not doctrinal reasons. Still these early Christians had some simple doctrines, which were seemingly taken for granted; and the danger is, to conceive the early Christians as either (1) too simple or (2) too ignorant. They believed that there is one God, that man has personal relations to God, that history has a dramatic course, that

right was God's command and absolutely different from wrong, that the Last Judgment would surely come.

But about the middle of the second century Christianity was obliged to change its attitude towards both science and the State. Between 150 and 250 a great change took place among the Christians. The documentary records are full of doctrinal struggles, so that little room was left for recording the struggles for moral purity. Morality became subordinated to belief, and the intellectual side of Christianity was emphasized at the expense of the ethical. The Second Coming of our Lord was less emphasized. This doctrine was either pushed into the background or its realization was looked upon as not immediate. Furthermore, the Christian sect had spread over the empire and had come into positive relations both with circles of culture and with political affairs. Various statistics of the numerical growth of the Christians are given; among them is the following statement: in 30 A. D. they numbered 500, in 100 A. D. 500,000, in 311 A. D. 30,000,000. In the second century the self-justification of Christianity could no longer be put upon the basis of the feelings and inner convictions. It must justify itself to the world without, and to its own cultured communicants as well. It was being attacked by philosophy, and, unless its own further growth were to be thwarted, it found that it must use the weapons of philosophy. Its increase of power antagonized both the Roman state and Hellenistic culture, and from 150 to 300 the fight between Christianity and the old world of things was to the death. Christianity eventually conquered Rome and Hellenism; but this would have been impossible if it had maintained its original attitude of indifference to culture. Its suc-

cess was due to the wisdom that it has since so often shown. It adapted itself to its new situation by taking over and making its own the culture of the old world, and by fighting the old world with that culture. Christianity thereby shaped its own constitution into such strength that it could obtain possession of the state with Constantine in 300. From this impregnable political position, it was able to deal with its rivals on an entirely different footing. When old Rome fell in 476, the church did not fall with it, but on the contrary it came into possession of the city.

But this political success was the result and not the cause of the growth of Christianity. It could never have conquered so intrenched a government as Rome, if it had not first been victorious over the more persistent civilization of Greece. It made itself inherently strong by Hellenizing itself — strong both for polemical and for constructive purposes. But it is obvious that little philosophical originality may be expected during this period. When the church fathers began to employ Hellenistic philosophy, they took it on the whole as they found it. They varied it only to suit their own legitimate purposes. Christianity entered the religious controversies of the time when victory would belong to the sect which could use Greek civilization most effectively in defending itself against the hostility of other religions, and in constantly renewing the confidence of its devotees.

But in the adoption of Hellenistic culture the church created a new danger to itself. It must guard its own conceptions lest they be smothered by this same Hellenism. It must keep its fundamental beliefs in their integrity. Greek philosophy must be a servant so con-

strained as to bring out only the implicit meaning of the fundamental Christian doctrines. Philosophy must not corrupt these doctrines and transmute them into Hellenism. The simple faith of the first century and its doctrines must be so formulated by Hellenic wisdom that it would be stated for all time. The church needed a dogmatic system, a creed that could forestall any future innovations. The long series of œcumenical councils of the church, beginning with the Council of Nicæa in 325, were united efforts in this direction. After that first council, dogma became more gradually fixed and, from time to time, this and that group of men were separated from the church as heretical.

Patristics is this philosophical secularizing of the Gospel which accompanied the internal and external development of the church body during the two or three centuries after the year 150 A. D.

The Philosophies influencing Christian Thought. The Greek philosophies most influential upon the development of Christian doctrine were Stoicism and neo-Platonism. The philosophy of Philo was also influential, but it was really only a bridge from philosophical Judaism to Christian theology. It contained both Stoicism and Platonism in an unsymmetrical form, and Philo's writings "contain the seeds of nearly all that afterwards grew up on Christian soil."¹ Greek philosophical influence upon the early Christian world was felt in two ways: in ethical theory and practice; in the construction of theology. During the fourth century Stoic ethics of a Cynic type replaced the early Christian ethics. The basis of Christian society was no longer the ethics of the Sermon on the Mount, but rather that

¹ Hatch, *Hibbert Lectures*, 1888, p. 182.

of Roman Stoicism. This is shown by the character of that book on morals (*De Officiis Ministrorum*) by St. Ambrose, Bishop of Milan (340–397). In theology the Christian doctrine had no need to borrow from the Greeks the conception of the unity of God or that of the creation of the world by God. But the Greek influence is seen in the doctrines on subjects allied to these: mainly on the questions of *the mode of creation* and *the relation of God to the material world*. In the discussion of these questions the influence of the Stoic monism, tending toward dualism, and the influence of Platonic dualism, tending toward a threefold conception of God, Matter, and Form, will appear in the examples which subsequently follow.

The most formidable opponent of Christianity during this time was neo-Platonism, but neo-Platonism and Christianity were not, however, long separated. Although neo-Platonism met its fate at the hands of scholasticism, it influenced in a thousand ways both orthodox and heretical Christianity. The rivalry of these two bodies ended — and with it came the ending of the Hellenic-Roman period of philosophy — in a complete and original theology. This was the theology of St. Augustine, who marks the end of antiquity and the beginning of the Middle Ages.

The Periods of Early Christianity (30 A. D. – 476 A. D.).

1. Introductory Period, 30–200.

(1) Period of Primitive Faith (during the 1st century A. D.). With great simplicity of doctrine and ceremonies the Christians were preparing through faith and the practice of virtue for the Second Coming of our Lord.

(2) Period of the Earlier Formulation and De

fense of Christian Doctrine (during the 2d century A. D.).

(a) The Apologists (2d century).

(b) The Gnostics (2d century).

(c) The Old Catholic Theologians (2d and 3d centuries).

2. Development Period (200–476).

(1) The Period of Actual Formulation of Doctrine (200–325). The Catechetical School of Alexandria — Origen (3d century).

(2) The Period of the Establishment of Dogma (325–modern times) as seen in the Council of Nicæa and other œcumenical councils. It was a period in which church dogma was developed on the basis of doctrine already established.

While the origin and development of the Christian church is an interesting story in itself, only one aspect of it is germane to the history of philosophy. That is the influence of Hellenism upon the formation of the theology of the church. The origin and development of the church organization lies beyond our field. Also the periods before the influence of Hellenism — the Period of Primitive Faith during the first century, and the period after dogma had become well established, the time after the Council of Nicæa in 325 — will be omitted from our discussion here. Only the period of the Earlier Formulation and that of the Actual Formulation of Doctrine, that is, the one hundred and seventy-five years (150–325), are of interest to us. This time is known in history by the name of the period of Patristics.

The Apologists. Only such Christians as were trained in Greek philosophy could rally to the first defense of the Christian doctrine. The new faith was, on the one

hand, on the defensive against the mockery of Greek wisdom, and, on the other hand, it was obliged to take a positive stand to show that it was the fulfillment of the human need of salvation. The Apologists tried to make the Christian teaching as consistent as possible with the results of Greek philosophy and, at the same time, to read into Greek philosophy Christian meanings. They did not at all intend to Hellenize the Gospel, but they wanted to make it seem a rational one to the cultured world. "Christianity is philosophy and revelation. This is the thesis of every Apologist from Aristides to Minucius Felix."¹ Their very act of defense was unintentionally the first step toward the incorporation of Greek philosophy as a part of Christian teaching. The most important Apologists were Justin Martyr (100–166), Athenagoras (d. 180), and among the Romans Minucius Felix (about 200) and Lactantius (d. 320). The life of Justin Martyr is characteristic. He was born in Sichem, Samaria, but was Greek in origin and education. Having investigated several systems of philosophy and religion, he came to the conclusion that the Christian religion was the only true philosophy, and he died in defense of it at Rome.

To prove that Christianity is the only true philosophy, the Apologists asserted that it alone guaranteed correct knowledge and true holiness here and hereafter. They proclaimed its preëminence because it is a perfect revelation of God through Jesus Christ. Since man is imprisoned in the world of the senses and ruled by dæmons, he can never be saved except through a perfect revelation. To be saved is to become rational, and man can become rational only by divine aid. Revelation has

¹ Harnack, *Outlines of the Hist. of Dogma*, p. 120.

not been restricted to Christianity, but God's inspiration has been at work in all mankind. The truth in Socrates, Plato, and Pythagoras has not been their own, but has sprung from this same divine inspiration, for truth never is the product of man's unaided reason. Socrates and Plato got their truth in part from God's direct revelation to them, in part indirectly from reading the works of Moses and the prophets. But revelation outside of Christianity has not been complete nor continuous. The first perfect revelation was in Jesus Christ, for He is the first to reveal the divine Logos completely. He is the first in whom the Logos has become man. He is the Son of God because the complete essence of the inexpressible Deity is unfolded in Him.

The Apologists thus identified reason and revelation. The Logos is the same in revelation, nature, or history. The Stoic conception of the Logos, which Philo had stripped of its materialistic character, was identified with Christ and revelation. Justin could regard as inspired what the Greeks had looked upon as natural in their own doctrines. Christ is the world-reason, in whom the divine has been incarnated, and the Apologists had the enormous advantage over the neo-Platonists of being able to point to Jesus as the definite and historical incarnation of God. The Apologists could summon the prevailing Platonic dualism of God and matter to their aid in showing the need of such a revelation; for matter is altogether without reason and goodness. Thus a summary of their doctrine is as follows: the world is bad and needs a revelation; the Logos of God has always been present in history, but has especially appeared in Jesus Christ, the man, in order to redeem men from their sin and establish the kingdom of God.

The Gnostics. Gnosticism is the name applied to a movement of hostile reconstruction of Old Testament tradition instead of a spiritual interpretation of it. It was a great syncretic movement in the second and third centuries, which sought to form a world religion in which men should be rated on the basis of what they intellectually and morally knew. The Gnostics tried to transform the Christian faith in a large way into knowledge that would still be Christian; and their efforts show how strong the philosophical interest among the Christians was beginning to be. The conditions for the development of such a doctrine as Gnosticism were everywhere present in the empire, yet two principal centres are pointed out: one at Alexandria and the other in Syria. Gnosticism was a most fanciful mixture of Oriental and Occidental cults and mythologies, very much more fantastic than either neo-Pythagoreanism or neo-Platonism. It was a philosophy in which the essential Christian principles were lost under the weight of esoteric knowledge. The Gnostics themselves were steeped in Hellenic culture, and in many localities formed only bands of Mysteries. They finally lost all sympathy with the Christians, and were classed as heretics by the church. The leading Gnostics were Saturninus, Carpocrates (about 130), Basilides, Valentinus (about 160), and Bardesanes (155–225). Only a few fragments of their many writings remain, and about all that we know of their doctrines is what their opponents say of them. Valentinus, the most notable, was born at Rome and died at Cyprus. Bardesanes was born in Mesopotamia. Carpocrates lived at Alexandria and was a contemporary of Basilides, who was a Syrian. The records of their careers are very meagre.

The Gnostics were the first philosophers of history.¹ They undertook to make Christianity a world religion by conquering Hellenic culture for Christianity and Christianity for Hellenic culture. The only way they could do this was by dislodging Christianity from its historical anchorage in the Old Testament. The Gnostics were in open hostility to Judaism. They transformed every ethical problem into a cosmological problem, they regarded human history as the continuation of natural history, they viewed the Redemption as the last act in the cosmic drama. This shows how closely related their teaching was to that of Philo and Plotinus and how consistent with the theoretic spirit of the time. Since the salvation of the world by Christ stands as the central point of their philosophy of history, their philosophy of history amounted to a philosophy of Christian history.

The victory of Christianity over paganism and Judaism was conceived allegorically by the Gnostics as the battle of the gods of these religions. The Redeemer was then conceived to appear at the psychological moment and to win the victory; and this appearance of Christ as Redeemer is not only the highest point in the development of the human race, but it is the dénouement in the drama of the universe. Nature was therefore conceived by them to be a battle-ground of the gods and the strife to be waged between the forces of good and evil. The good gets the victory by means of Christ. The battle was conceived in the neo-Pythagorean form of the dualism of matter and spirit, but was expressed in mythical terms. The heathen gods and the god of the Old Testament, who took the

¹ Windelband, *Hist. of Ancient Phil.*, p. 357.

form of the Platonic demiurge, were the powers in the world which the highest God had to overcome.

The dualism of good and evil was conceived to be the same as between spirit and matter, and was elaborated in a fashion true to the Alexandrian school. The space between God and matter was conceived to be filled in by a whole race of *dæmons* and angels, arranged according to the Pythagorean numbers. The lowest was so far from the divine perfectness as to be in touch with matter, and he is the demiurge who formed the world. The battle then was between good and evil, light and darkness, until the Logos, the Nous, Christ, the most perfect of the intermediary beings, came down and by incarnation released from matter the imprisoned spirits of men and even of the fallen angels, like the demiurge. This is, in brief, the Gnostic explanation of history.

This dualism was quite consistent with contemporary Christian ethics, which had then become Stoic. But this dualism was not consistent with monotheism, the fundamental Christian principle. The internal danger in Patristics — of swamping the fundamentals of Christianity through Hellenizing them — appears thus early. The early Christian found at the beginning an antagonism between his fundamental monotheistic metaphysics and Greek dualistic ethics.

The Reaction against Gnosticism. — The Old Catholic Theologians. We have seen that the original position of the Christians was one of indifference to both politics and philosophy; that then came the employment of Hellenism in the defense of the Gospel. This resulted in the extreme attempt of the Gnostics to transform Christianity into a factor in a cosmic the-

osophy. Gnosticism had tried to capture the new religion by force and make it subserve the interests of Hellenic and Oriental philosophy. This danger was averted only after years of controversy. Gnosticism was the gravest danger that the early church had to meet, and the Gnostics left their mark upon the church, although they were expelled; for the church never returned to its original simplicity of doctrine. Gnosticism, however, produced an extreme reaction, for a time, against the use of philosophy, and was represented by the "Old Catholic Theologians," — Irenæus (140–200), Tertullian (160–220), and Hippolytus. These theologians stood against turning faith into a science and tried to limit dogma to the articles of the baptismal confession interpreted as a rule of faith. Tatian (170) saw in Hellenism the work of the devil. Irenæus conceived a unity in the process of creation and redemption, — creation as a divine method of bringing humanity up into the church by way of redemption. Tertullian went so far as to affirm that the Gospel is confirmed by its being in a certain sense contradictory to reason. *Credo quia absurdum*. By this he means, not that faith rests in things absurd, but that faith rests in things so far above reason as to make reason absurd. This reaction was against Gnosticism and not against rationalism, for these men used both philosophy and tradition to support their arguments.

The reaction against a systematic theology failed to establish itself, for the need of Greek philosophy was found to be necessary. The result was that a median position was taken by the help of Greek philosophy in the formulation of the dogma of the church. This was scientifically stated by the Alexandrian School of

Catechists, of which Clement and Origen were the leaders.

Origen (185-254) and the School of Catechists. Origen, whose surname was Adamantine, was an early teacher in the School of Catechists, which had been under the direction of Clement. Like Plotinus, Origen had been a pupil of Ammonius Saccas. Origen endured much persecution on account of his teaching, and had to flee from Alexandria to Cæsarea and Tyre, where he spent his old age. He was the most influential theologian of the Eastern church, and he was the father of Christian theological science.

In manner of life Origen was a Christian; in his thought he was a Greek. He was the Christian Philo, although he was a rival to the neo-Platonic philosophers. His Christian theology competed with the philosophical systems of his time. It was founded on both Testaments, and it also united in a peculiar way toward a practical end the theology of both the Apologists and the Gnostics. He was convinced that Christianity could be expressed only as a science, and that any form of Christianity without scientific expression is not clear to itself. Although the church was offended at some of his doctrines, it made his philosophical principle and his theory of development its own. In trying to state Christianity in terms of intellectual knowledge, Origen did not make the mistake of burying its principles under philosophy or mythology, as was the case with the Gnostics. The Gnostics had created a new Christianity; Origen developed Christianity from within itself. He was an orthodox traditionalist, a strong Biblical theologian and idealistic philosopher. He maintained that there were several ways of interpreting the Scrip-

tures (allegorical interpretation). The masses see only the somatic or outward meaning as it has been developed in history. A deeper or moral interpretation gives a psychical meaning to the Gospel truth. More profound still is the spiritual interpretation, which gives to the Gospels a pneumatic or spiritually esoteric meaning. Christianity is superior to all other religions because it is a religion for all classes, even for the common man. Christianity is the only religion which, without being polytheistic, can have its truth in mythical dress.

The aim of Origen was less to show how the world came to be, than to justify the ways of God to men in the world's creation and history. The central principle in his teaching is spiritual monotheism. God is an unchanging spirit, the author of all things, and He transcends human knowledge. What distinguishes Him most is the absolute causality of His will. He is essentially creative, and this creative activity is co-eternal with Himself. God can have no dealings with changing individuals directly, since although creative He is unchanging. He has direct connection only with the eternal revelation of His own image, the Logos. The Logos is a person, a special hypostasis, the perfect likeness of God with nothing corporeal about him. He is not *the* God, but still God, yet a second God, with no sharing of divinity.¹ The Holy Spirit bears the same relation to the Logos as the Logos to the Father. In his relation to the world the Logos is the Idea of Ideas, the norm according to which things are created.

Origen followed Philo in believing that the original creation consists of a world of beings that are pure intelligences, and that the cause of creation is God's

¹ Harnack, *Outlines of the History of Dogma*, p. 159.

goodness. He further believed that the Logos or Wisdom of God is God's Son. Both the creation of the ideal world of intelligences and the existence of the Son is from eternity. The origin of the visible world is to be contrasted with this eternal creation. The visible world had its beginning in time and is only one of a series of worlds. It will finally return to God, and has in God its beginning and end. Thus man lives in a visible world of time with eternities on either side. Creation, viewed as a whole, is everlasting, and consists of an endless number of beings who are destined to become a part of the divine holiness and to participate in the divine blessedness. These beings are endowed with freedom of will, and they fall away from God. The visible world of matter has been created to purify the fallen spirits, and in consequence we find materialized spirits graded into angels, stars, mankind, and evil dæmons.

In his emphasis on the will as the fundamental mental part of man, Origen is distinctly Christian and opposed to Greek intellectualism. The will of God and the will of man form the corner stone in his system. The will of God is the eternal development of His being, but the will of spirits is their temporal free choice. The will of God is reality itself; the will of spirits is phenomenal and changing. Freedom of the will of the spirits is the ground of their sin, and consequently of their materiality. Thus it is by the freedom of the spirits that Origen explains evil and the existence of imperfect matter without impeaching the eternal purity of God. Origen thus reconciled the ethical transcendence of God as creator with his immanence in the material world. God is the creator without being the creator of sin. *Through the conception of*

free-will Origen reconciled the two antithetical principles of Christian metaphysics: faith in divine omnipotence and consciousness of sin.

The function of the church is thus an important one in the divine plan. For the fallen spirits try to rise by their own wills from the matter to which they are condemned for purification. They never lose their divine essence, however low they may fall. They cannot rise alone, nor are they compelled to, but they always have the help of divine grace, which is always active within man and has also been perfectly revealed in Jesus Christ. After the manner of the Apologists, Origen makes use of the Stoic and Platonic conceptions, for the eternal Logos takes form in the divine-human unity of Jesus. Through His physical suffering redemption is made possible to all believers, and through His essence illumination has been brought to those especially inspired. There are different grades of redemption: faith, or a religious understanding of the perceptual world; knowledge of the Logos; final absorption in God. All shall finally be saved through the combined forces of freedom and Grace, and then shall all material existence disappear.

The controversies within the church during the succeeding centuries over the theory of Origen are theological rather than philosophical, and so our account of the relation of Greek philosophy to Christianity in the Hellenic-Roman period closes here. Origen's undertaking was a private one, approved at first in only limited circles and on the whole disapproved by the church. In his scientific dogmatics the particular changes which he planned pertain especially to the conception of salvation and the place of Christ in the universe. In his

teaching about Christ he emphasized more the cosmological than the soteriological aspect, but neither was fully developed. The history of the early church shows that Christianity seized the ideas of ancient philosophy and insisted on revising them with its own religious principle before it used them. We shall find that the next period is introduced by a greater than Origen, in whom again the Christian and the ancient worlds will meet in new and richer combination, — St. Augustine.

BOOK II

THE MIDDLE AGES (476-1453)

CHAPTER XV

CHARACTERISTICS AND CONDITIONS OF THE MIDDLE AGES

Comparison of the Hellenic-Roman Period and the Middle Ages. The Middle Ages can be conveniently remembered as approximately the 1000 years between the fall of old Rome, in 476, and the fall of new Rome (Constantinople) in 1453. Together these two periods make a long and a philosophically unproductive stretch of 1800 years. The intellectual materials which the two periods possessed, differ but little, although during the first half of the Middle Ages such materials were very few. There is, however, a decided difference in the way the two periods look at things. The ancient had started with Aristotle's interest in knowledge for its own sake; the ancient had passed from that to the need of knowledge in ethical conduct; he had finally made use of knowledge only in formulating religion. On the other hand, the history of thought in the Middle Ages was exactly the reverse. The mediæval man starts satisfied with religion as thus formulated by the preceding period, and seeks to regain pure knowledge. The perspective in the two periods is therefore different. Hellenic thought began in freedom and ended in tradition; mediæval thought begins in tradition and, borne by the youthful German, who brings with him few original

ideas, pushes forward toward freedom. No doubt one can discover in mediæval times many fresh transformations of ancient thought and a new Latin terminology, but, on the whole, all the problems of the Middle Ages, as well as their solutions, can be found in antiquity. One may find, too, the germs of modern thought in the Middle Ages, but they come from mediæval pupils and not from mediæval masters. In the Middle Ages humanity is again at school; its problems appear in succession, but they always are expressed in the conceptions of the ancients.

The Mediæval Man. Antiquity had brought together three civilizations, — those of Greece, of Rome, and of Christianity. Greek civilization in the form of an intellectual culture, called Hellenism, had been superimposed upon Roman political society. The result was a society with a twofold stratum, and in such a society the Christian church had grown as an organization of controlling cultural and political influence. It was into this society that the German barbarians, by a series of invasions, entered during the first three centuries of the Middle Ages.

The Middle Ages began and antiquity ended when these German tribes finally broke down the barriers of the Roman empire. It was a new period; for a new race had taken upon itself the responsibility of bearing the burden of the future of western Europe. The German was of course unconscious of the magnitude of his self-imposed burden, for the German was young, vigorous, and moved by primitive instincts. He had leaped into the world's fields as a conqueror; he remained as a laborer.

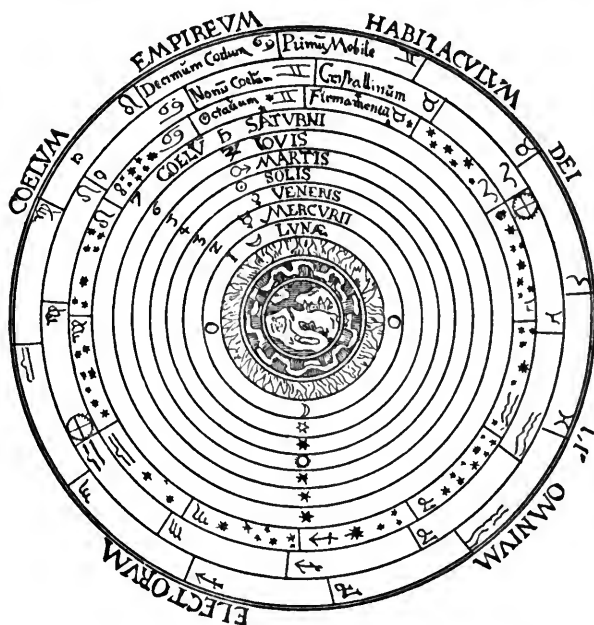
At the beginning the German seemed likely to de-

stroy the entire product which antiquity had bequeathed. He was quite unprepared to assimilate the rich fruits of that ancient civilization. He had, indeed, less mind for the elaborate forms of Greek philosophy than for the lighter forms of Greek art. In his first contact he could understand neither. Moreover ancient society was so weak that it could not educate him, who was its conqueror, into its culture. Nevertheless, there was one element in that ancient society that did appeal to the German. That was the spiritual power of the Christian church. Alone amid the ruins of antiquity the power of the church had grown so strong that the men of the north bowed before it, and religion accomplished through the emotions of the Germans what art, philosophy, and statecraft failed to achieve. The preaching of the Gospel laid hold of the feelings of these primitive people, for the church in its pretensions, and sometimes in fact, represented the old Roman political unity. Moreover the church was also the repository of what was left of Greek science. The church expressed for the German his own ideal of the personal inner life. The Germans became the supporters of the church, and in this way the protectors of ancient culture. Mediæval history in western Europe is therefore the record of the development of the Germans under the influence of the Christian church. In contrast with the development of the Eastern church, which was the development of a state church, the Western church was the development of an ecclesiastical state. The Western church, and not the later empire, was the true successor of the Roman empire. Thus the early beginnings of the Middle Ages rested with the church, but the later development of the Middle Ages rested with the German people.

How the Universe appeared to the Mediæval Man. The mediæval man had very indistinct ideas about the world around him, since his interest did not lie in the earthly realm, but in the spirit that controlled it. He was content in his sciences with conclusions without their demonstrations. Although it is said that relations of space and number are never indistinct in the mind of the civilized man, the man of the Middle Ages certainly did not possess such conceptions in so vigorous a manner as to enable him to discover new truths. We must, furthermore, make a sharper distinction between mediæval popular opinion and mediæval scientific opinion than we should about popular and scientific opinion of modern times; for the results of science did not reach the people then as now. To the ordinary mediæval man the world in which he lived was what it appeared to be to his eye. The earth was flat; the sky was a material dome, which sustained the waters of the world above it. Through this sky-floor the water sometimes breaks and the earth receives showers of rain. These popular notions sometimes appeared in the verse of the time.

The mediæval scientific opinion was based on the theory of Ptolemy and his school of Alexandrian astronomers, who lived in the second century A. D., some details to the theory having been added by the Arabians. Ptolemy says, "The world is divided into two vast regions; the one ethereal, the other elementary. The ethereal region begins with the first mover, which accomplishes its journey from east to west in twenty-four hours; ten skies participate in this motion, and their totality comprises the double crystalline heaven, the firmament and the seven planets." (See diagram.) The mediæval man of science thought that, inasmuch as he

was upon the earth, he was therefore standing at the centre of things. Directly above him was the cavity of the sky, ruled by the moon; and below the moon were the four elements, — fire, air, water, and earth. This region was the realm of imperfection. But above the



PTOLEMAIC COSMOGRAPHY

A diagram showing the division of the universe into the ten spheres or heavens

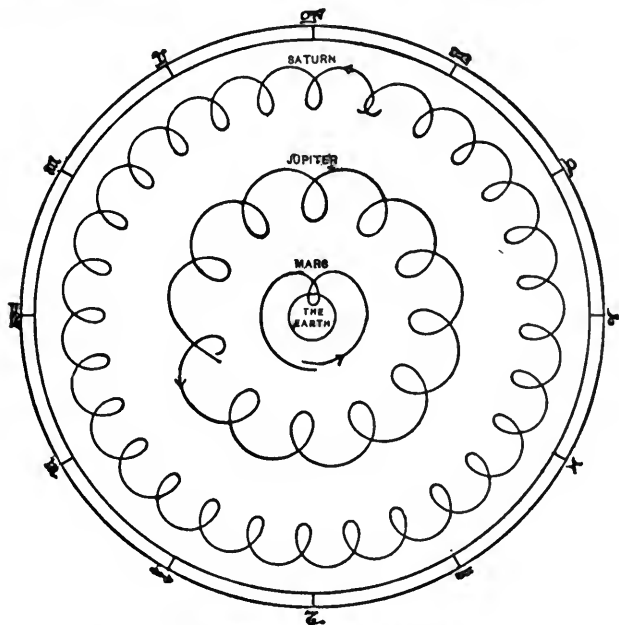
(From the private library of Professor R. W. Willson of Harvard University)

moon the scientist saw a series of nine other heavens, each with an orderly revolution of its own; and beyond all is God. The universe was therefore to Ptolemy a great but a limited sphere, consisting of ten spheres one inside another (like the rings of an onion). Each

planet moved with the motion of its own heaven (or sphere), which was sometimes called "crystalline" because it was transparent. The movements of the heavenly bodies, each in its own revolving heaven, were contained in the whole sphere, which revolved with a motion of its own. By ascribing other movements to the planets within their respective heavens, the mediæval astronomers were able to predict every conjunction and eclipse to the minute. These separate movements of the planets were called epicycles, the form of which is shown in the diagram on the opposite page.

Such a scientific astronomy would easily lend itself to the theological conceptions of the time. The realm of perfection above the moon was supposed to be under the direct supervision of God and to be inhabited by spirits. Thus the conjunction and relation of the heavenly bodies were thought to have influence upon human life, and they furnished the basis of the astrology, necromancy, and spiritism so common in the Middle Ages. The ninth heaven embraced all the others. It swept around them all, without interfering with their own special motions, and completed its revolution in twenty-four hours. The ninth heaven was both the source and the limit of all motion and all change. Beyond it lies the eternal peace of God, which the Christian astronomer regarded as "the abode of the blessed." This was called the tenth heaven or the Empyrean. This, in Dante's words, is "the heaven that is pure light; light intellectual full of love, love of the good full of joy, joy that transcends all sweetness." The tenth heaven is Paradise and is within the life of God. It is important to note that the Ptolemaic conception of the universe is the background upon which Dante constructs his *Divine*

Comedy (see diagram, p. 376),* and appears in part at least as the cosmological basis of the *Paradise Lost* of Milton. For thirteen centuries—from 200 to 1500—conviction remained unshaken in the Ptolemaic system of astronomy as an adequate explanation of the universe.



PTOLEMAIC COSMOGRAPHY

(Showing the Epicyclic Movements of Saturn, Jupiter, and Mars in respect to the Earth)

The Mediæval Man at School. In the eleventh and twelfth centuries there was a revival in intellectual interests that was deep and broad, and the characteris-

* Read Rossetti, *Shadow of Dante*, pp. 9-14; Karl Witte, *Essays on Dante*, pp. 99 ff.

tics of this revival will be discussed subsequently (see Transitional Period, p. 329). Our curiosity, however, is aroused upon our entrance into the Middle Ages, as to what the man of the early Middle Ages studied and how much he learned. We must remind ourselves at the outset of the oft-repeated fact that, on the whole, in western Europe, for the first five hundred years of the Middle Ages, the only people who had any book-learning were the churchmen. Furthermore, with them the learning was very meagre. Their purpose in study will show this, for it was to enable them "to understand and expound the Canonical Scriptures, the Fathers, and other ecclesiastical writings." The training was as follows:—

1. Theological. Elementary instruction in the Psalms and church music, but no systematic training in theology,—just enough training to enable the priest to understand the Bible and the Church Fathers.

2. Secular training. Knowledge in the "Seven Liberal Arts," *i. e.* the *trivium*,—grammar, rhetoric, and dialectic; and the more advanced *quadrivium*,—music, arithmetic, geometry, and astronomy. These names are suggestive of a vast amount of knowledge, while, in truth, very little was known or taught in these subjects. Astronomy and arithmetic were employed to find the time of Easter. Geometry included some propositions of Euclid without demonstrations. Music included plain song and a mystic doctrine of number. More was made of grammar, the study of rhetoric from Latin classics, and dialectics. Dialectics was logic in the Middle Ages, and its mysteries fascinated the mediæval man. But even in logic there were only some remnants of the Aristotelian logic known.

. **A Mediæval Library.** Here again is an interesting

question: What did this mediæval churchman read? But we must make a distinction between books most commonly read, books that the scholars might use, and books most influential upon thought.

1. **Books most commonly read.** These would be the text-books used in instruction. They are as follows: —
The *Psalms*.

The *Grammar* of Donatus.

The Christian poets: Prudentius, *Psychomachia*; Juvenecus, *Gospels in Verse*; Sedulius, *Easter Hymn*.
Dionysius Cato, *Disticha de Moribus*, a collection of proverbs (moral maxims) in rhyming couplets.

Virgil, Ovid, and the rhetorical works of Cicero.

Æsop's *Fables* (in Latin).

2. **Books that the scholars might use.** It is difficult to say what any particular scholar actually did read, for the libraries of monasteries differed enormously in the character and number of their books; some monasteries had several hundred books, some none at all. Some libraries were composed almost entirely of works of the Fathers; some possessed a good many works of ancient classical writers. One *might* expect to find any one or more of the following works in a scholar's library: —

Aristotle, *De Interpretatione* and the *Categories* in Boëthius' translation.

This explains why the logical problems occupied the almost exclusive attention of the first schoolmen. Plato, the *Timæus*.

This was known to the Irish monks perhaps in Greek, but on the continent in a translation by Chalcidius. The only other sources of knowledge of Plato were in the works of Augustine and the neo-Platonists.

Commentaries on Aristotle, — The *Isagoge* by Porphyry, in a translation into Latin by Boëthius, and some commentaries by Boëthius himself on Aristotle's *De Interpretatione* and *Categories*.

Cicero, the rhetorical and dialectical treatises, such as the *Topica*, *De Officiis*.

Seneca, *De Beneficiis*.

Lucretius, *De Rerum Natura*.

Augustine's works and some pseudo-Augustinian writings.

The works of the Church Fathers, Clement of Alexandria and Origen.

The *Pseudo-Dionysius*, translated from the Greek by Erigena.

The encyclopedic collections of some of the last of the scholars of antiquity, like Cassiodorus, Capella, Boëthius, and the *Etymologies* of Isidore of Seville.

3. The Books most influential philosophically upon the time. These were not necessarily the books most widely read, but the epoch-making books, so to speak. They were as follows:—

Augustine, *City of God*.

Boëthius, *Consolation of Philosophy*.

Aristotle, *De Interpretatione* and the *Categories* in translation by Boëthius.

Pseudo-Dionysius, translated by Erigena.

Porphyry, *Isagoge* translated by Boëthius, an introduction to Aristotle's *Categories*.

The Three Periods of the Middle Ages.

1. Early Period, 476–1000.

2. Transitional Period, 1000–1200.

3. Period of Classic Scholasticism, 1200–1453.

There is one great natural division line of the Middle

Ages, the year 1200. At this time the surging of the western peoples eastward in the Crusades was at its height, and the works of Aristotle were coming into western Europe from the East. These events mark a change in the political and intellectual situation in Europe. But this change did not take place suddenly. There are intervening two centuries that are indeed transitional, but at the same time are animated by a distinct and independent philosophical motive. These two centuries may be set apart as a period, different from the earlier and the later periods. We shall call these three periods the Early Period, the Transitional Period, and the Period of Classic Scholasticism.

The Early Period takes us from the fall of old Rome (476) to the birth of modern political Europe (1000). It is a period of religious faith governed by the theology of Augustine. Mysticism has no independent following, but on the contrary rules within the church. The Christian principle of individual personality and the Greek Platonic conception of universal realities are not fused, but they are held without arousing controversy. This is because the human reason has no standard code, nor does it yet feel the need of one. The only two philosophers, Augustine and Erigena, of the period are animated by neo-Platonism.

The Transitional Period extends from the birth of political Europe (1000) to the arrival of the works of Aristotle (about 1200). This epoch is one of logical controversy, in which the Christian and the Greek motives conflict. This controversy gives rise to the first group of great schoolmen, who discuss the reality of general ideas in their application to dogma. Mysticism still rules the churchman, but now in a modified form.

Plato has become the standard of the reason in orthodox circles and Aristotle in those inclined to heresy, but as yet only fragments of the works of either are known.

The Period of Classic Scholasticism extends from 1200 to the end of the Middle Ages (1453). It is a period when a theological metaphysics arises by the side of the logical controversy and predominates over that controversy. The problem now concerns the respective scopes of the reason and faith. The period is Aristotelian, and Aristotle's philosophy is made the standard code for the churchman for all time. Mysticism has now no place of authority in the church, but has an independence. The period contains the greatest schoolmen of the Middle Ages.

Summary of the Political and Educational Worlds of the Mediæval Man.

I. *Early Period*, 476–1000.

- | | | |
|---------|---|---|
| 395 | The Roman empire divided into Eastern and Western empires. | (Augustine, 354–430) |
| 476 | Fall of the Western empire, the Eastern empire lasting about 1000 years longer. | 476–800 Disappearance of municipal and imperial schools and rise of episcopal and monastic schools. |
| 375–600 | Northern barbarians overrun the Western empire in series of invasions. | 525 Boëthius died, the last notable Roman scholar who knew Greek. |
| 600 | Roman power almost entirely in hands of barbarians. | 529 Closing of philosophical Schools at Athens; |

- 622-732 Mohammedans conquer Arabia, Northern Africa, and Spain. *founding of monastic school by St. Benedict.*
- 732 Mohammedans repulsed at the battle of Tours.
- 600-800 Fusion took place among German and Roman peoples. 476-800 Dark Ages.
- 800 Empire of Charlemagne founded. Civilization higher than the German, lower than the Roman. 800-1000 Benedictine Age: *only period in Western Europe when education is entirely in hands of monks. The Palace school; episcopal, cathedral, and monastery schools. (Erigena, 810-880, the forerunner of Scholasticism.)*
- 900-1000 Empire of Charlemagne broken up. *Demoralization.* Invasions by Danes and Northmen from the north; Saracens from south by sea; Slavs, Hungarians, Russians, and Poles by land. The church demoralized, Papacy 900-1000 Dark century with decline of learning.
- IN THE EARLY PERIOD AND THE TRANSITIONAL PERIOD LITTLE OF PLATO WAS KNOWN

temporarily disappears, feudalism replaces empire.

EXCEPT IN THE FORM
OF NEO-PLATONISM
AND LITTLE OF ARIS-

II. *Transitional Period*, 1000–1200.

1000 France and Germany get their first form as nations just before this year; England just after. *Beginning of new birth of Europe*, caused by conversions of northern nations, by enlightened rule of the Ottos, by regeneration of Papacy, by development of civic life.

Beginning of political order, ecclesiastical discipline, and social tranquillity.

Revival of architecture followed by renewal of art. The Romanesque appeared about 1000, the Gothic about 1150. Poetry of Trouvères in north and of Troubadours in south.

TOTLE EXCEPT OF
FRAGMENTS OF HIS
LOGIC.

First Scholasticism.
(Anselm, 1033–1109)
(Roscellinus, d. 1110)
(Abelard, 1079–1142)

1000 Passion for inquiry takes the place of the old routine.

1160–1200 Traces of the origination of the earliest universities.

1150–1250 Translation into Latin directly from Greek of the works of Aristotle, previously unknown in Western Europe.

III. *Period of Classic Scholasticism, 1200–1453.*

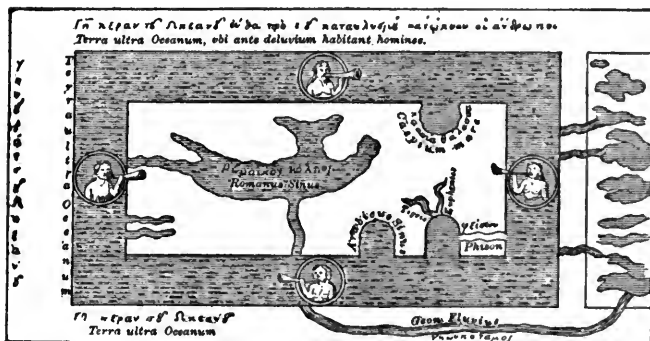
- | | |
|--|---|
| 1200 Crusades at their height. | 1200 The Mendicant Friars. |
| 1200–1453 Commerce of Europe with Asia begins to grow to large proportions in countries on the Mediterranean. The Third Estate grows in strength, national governments prevail over the feudal system. | <p><i>Classic Scholasticism.</i>
 (Thomas Aquinas, 1224–1274.)
 (Duns Scotus, 1270–1308.)
 (William of Ockam, 1280–1349.)</p> <p>1300–1453 The period is well supplied with schools.</p> <p>1350–1453 Deterioration of Scholasticism.</p> |

CHAPTER XVI

THE EARLY PERIOD OF THE MIDDLE AGES (476-1000)

The General Character of the Early Period. It is no accident that these five hundred years of the Middle Ages were spiritualistic. Both the political disturbances and the intellectual inheritance from the Hellenic-Roman period made the period such. The troubles during the long death agony of the Roman empire had deprived the people of their interest in this world. The world of kingdoms and material things presented no ideals ; and the age would have been pessimistic had not the Church through Augustine presented a heavenly ideal and the means to win that ideal. Both what the material world had taken away from man and what the spiritual seemed to offer him, made the age an age of faith. The principle of inner spirituality was moved to a central position. All things pointed to the supernatural and the transcendent. Men dwelt upon the nature of God, the number and rank of the angels, the salvation of the soul. In this, as in the Transitional Period following, little was known of Aristotle except some fragments of his logic ; and little was known of Plato except in the form of neo-Platonism. But in this period (before the year 1000) the pupil was instructed in both Aristotle and Plato, and held them both together without controversy. Mysticism had little independence of church doctrine, as appears in the case of Erigena, the consequences of whose doctrine were not at first seen. The monastery became the fundamental

social organization and the central social force. Organized ascetic life permitted an absorbing contemplation of heaven. Prayer superseded thought; faith prescribed knowledge. The intellectual world was dominated by neo-Platonic idealism, and the all-important topic in men's minds was that of God's grace. Augustine stood at the beginning of the period and organized its conception of grace for it. Erigena stood near the end and stated the neo-Platonism of the period in extreme form, presenting the issue for the scholasticism of the many years



MEDIEVAL GEOGRAPHY. THE COSMAS MAP, A. D. 547

From J. Krane's *Evolution of Geography*

(Cosmas was an Egyptian monk who had once been a merchant and traveler. He did not use the records of his own travels to supplement the Greek and Roman plans, but he laid down as a fact that the earth is flat. Then he plausibly adduced evidence from the Scriptures to support his view. The maps drawn by Cosmas are the earliest Christian maps that have survived. Their crudeness, compared with the maps of the Romans and Arabs, reveals the low state of knowledge among the Christians.)

to come. The presentation of the doctrine of these two men will therefore be the philosophical exemplification of the attitude of the time.

The Historical Position of Augustine. The Middle Ages were inaugurated by a mind of the highest order,

—Augustine.* If one were to select the most influential figures in the history of philosophy, Augustine might be chosen to stand with Plato, Aristotle, Spinoza, and Kant. "In some respects Augustine stands nearer to us than Hegel and Schopenhauer."¹ For the church, but no less for the period, it was a fortunate circumstance that Augustine should have lived just as antiquity was closing and the mediæval period beginning. Through him the various influences of the past were gathered up and presented in a scientific statement for the Middle Ages. "The history of piety and of dogma in the West was so thoroughly dominated by Augustine from the beginning of the fifth century to the era of the Reformation, that we must take this whole time as forming one period."²

In his relation to antiquity Augustine drew especially upon the fundamental teachings of St. Paul, the neo-Platonists, and the Patristics for the presentation of his own doctrine. He was familiar with a great number of the doctrines of antiquity, and was the medium of their transmission to the Middle Ages. He does not seem to have known the system of Aristotle, but the importance which he attached to the dialectic in the explanation of the Scriptures contributed a good deal to the use of the logic of Aristotle by the scholastics of the Middle Ages. He had some knowledge of the Pythagoreans, the Stoics, and the Epicureans through the writings of Cicero. But the most important philosophical influence upon

* Read Eucken, *Problem of Human Life*, pp. 219–221, 232, 236, 245–248; Turner, *Hist. of Philosophy*, p. 226; De Wulf, *Hist. of Mediæval Phil.*, pp. 90–98; Harnack, *Hist. of Dogma*, vol. v, pp. 3–6.

¹ Eucken, *Problem of Human Life*, p. 247.

² Harnack, *Hist. of Dogma*, vol. v, p. 3.

Augustine was the neo-Platonic teaching of Plotinus and Porphyry. Neo-Platonism, the Pauline theology, and the Patristic are the large factors in the doctrine of Augustine.

In his relation to the Middle Ages, what in brief was the position of Augustine? By means of neo-Platonism and a discriminating psychological analysis *he transformed the previous belief in God as a judge into a belief in the personal relations between God and man.* That is to say, he carried out monotheism spiritually, and in doing this the influence of neo-Platonism is very strong in him. Augustine made one of the centres of his teaching the living relation of the soul to God. He took religion out of the sphere of cosmological science, where it had been placed by Origen and the Gnostics, and made it personal. Furthermore, he offered with this new ideal a plan of salvation; for Augustine made it his task to show (1) what God is, and (2) what the salvation of the soul requires. Whereas before Augustine the only dogmatic scheme had presented the place and function of *Christ* in salvation, Augustine was interested in the place of *man* in salvation. Thus he elaborated monotheism into spiritual monotheism and delineated the inward processes of the Christian life, *i. e.* of sin and grace. This important advance made by Augustine must be attributed to the influence of philosophy — neo-Platonism — upon him.

But it must not be supposed that the total teaching of Augustine and the total influence of his thought is contained in this single change in Christian piety, as we have stated it. The various Pagan and Christian elements, as they lie in his system, have little coherence; and Augustine does not settle the rival claims between

them. As the mediæval period advanced, what in his teaching had been a mere incoherence became in the hands of others positive discord. He gave the church impulses of the highest spiritual quality, but he left no well-organized capital. These impulses toward spiritual piety have never been lost, but the profusion of ideas and views in Augustine, unharmonized by himself, were also a permanent bequest to posterity that produced both vital movements and violent controversies. The legal and moral party of the church resisted his teaching at the beginning, and in the sixth century, under the influence of Gregory the Great, toned down Augustine's teaching in the direction of a conception of the church as a juristic organization.

Augustine was thus the beginner of a new line of development by his incorporation of neo-Platonism into Christian doctrine and by his use of the dialectic to present, defend, and develop the doctrine of the church. Although the years of his life fall in antiquity, although he is the collector of all the threads of the neo-Platonic and Christian religions, he belongs in the Middle Ages as the teacher of the Middle Ages. His doctrine acted as an authoritative spiritual guide for the new German peoples. They took up the problems of antiquity from the new point of view of individual spirituality, and created out of them the philosophy of the future. But philosophically Augustine was far in advance of his age, and in the intellectually torpid times that followed him little philosophical development could be expected. Not until after Charlemagne does philosophical development springing from Augustine appear. Later Luther and the Reformation reverted to him, and our modern philosophy is founded on the principle which he made central in his conception of piety.

The Secular Science. At the same time it must not be supposed that the teaching of Augustine was by any means the only source from which this first period of the Middle Ages drew its materials of knowledge. A glance at the list of books in a mediæval library (see p. 327) will not confirm such a supposition. Augustine does not include in his doctrine — massive as it is — all the factors that finally made up mediæval civilization. Even at the beginning there was a tendency toward secular science derived from Plato and Aristotle. Noticeable as this was at first it became prominent later. Secular science tried at first to modify scholasticism, and then later to gain an independence for itself. The doctrine of Augustine did not contain the germs of science. But at the start the Middle Ages had writings on science in the inadequate compendiums of Capella, Cassiodorus, and Boëthius, and in the fragments of the logic of Aristotle.

The Life of Augustine (354–430). Aurelius Augustine, often called “the Plato of Christianity,” was born in Thagaste, Numidia. His father was a Pagan, his mother a Christian ; and it was his mother who contributed chiefly to the formation of his character. He was a boy of brilliant gifts, and was educated in the schools of Madaura and Carthage. At Carthage his life was full of dissipation, which he has described in his *Confessions*. He took up in succession all the scientific and religious problems of his time. He gave up the teaching of rhetoric, which he had practiced in several towns in Asia Minor and Italy, and began to study theology. He was troubled by his religious doubts and tried to find relief first in Manichæism, then in the skepticism of the Academy, and then in neo-Platonism.

He was converted to Christianity through three influences: his study of Plato, the eloquence of St. Ambrose, and the unremitting moral influence of his mother. He became a priest, then a bishop, and was untiring in his activity both in the practical organization of the church and in the theoretical construction of its doctrines. He was especially active in his literary attempts to refute the Pelagian and Manichæan heresies, whose doctrines he had previously professed. His life falls at the time when the barbarian invasions were beginning and when Rome was crumbling. Moved by his Platonic idealism, he wrote his *City of God*, which, in an elaborate philosophy of history, shows that God's city is not on earth, but in heaven.

The Two Elements in Augustine's Teaching. The great masses of thought in Augustine's mind reveal motion in two directions. On the one hand, he is the theologian who holds on high the conception of the authority of the church. On the other hand, he is the philosopher who speaks for the principle of immediate certainty for the individual. These are two foci about which his thought is in constant flux and often in contradiction. Augustine has, therefore, two criteria for truth: the truth that comes from an authority without, and the truth that comes from consciousness itself. *The authority of the church and the authority of the immediate consciousness of the individual* — these are the two central thoughts in Augustinianism. Augustine's conception of the authority of the church acted upon him as a lofty ideal which both inspired and at the same time constrained his speculations. As he grew older he gravitated more and more toward it, and thereby became more conservative. But it was the other central thought — the authority of immediate conscious-

ness — which he made the basis of a philosophy of original power. Through this he transcended his own time and became himself a modern, leading the Middle Ages up to him.

Augustine did not define accurately the spheres of philosophy and theology. He did not show whether reason or revelation had the higher authority. He did not try to decide between the *intelligo ut credam* and *credo ut intelligam*, that is, between the respective authorities of reason and faith. That became, in consequence, a central philosophical problem for the schoolmen. Nevertheless, the great inheritance which Augustine left the world was along the philosophical line of *intelligo ut credam* (of knowledge as the basis of faith instead of faith as the basis of knowledge).

The Neo-Platonic Element : the Inner Certainties of Consciousness. Augustine was not original in making the starting-point of his philosophy the inner certainties of consciousness. That was the point of view of his time, and the starting-point of the ascetic tendency both of Christianity and of neo-Platonism. He was dissatisfied with the world without, and turned away from it to the world within to find reality. But this had been a growing tendency ever since the time of Plato. Augustine's originality lies in his psychological description of these certainties. He is the master of self-observation and introspection. He can describe inner experiences as well as analyze them. He puts his philosophy upon a solid anthropological basis by developing a psychology of the certainties of consciousness. In doing this he placed the inner experience in the central position of control. Thus he reached a well-defined position of "internality" for which the Stoics, Epicureans, neo-Platonists, and the

preceding Christian theologians had been groping ; thus he anticipated Descartes and modern philosophy.

Man clings to life in spite of all its evils. This shows that there is a reality for the soul. The material world may pass away, but the reality of soul-life is assured. Man's inner life is ever present and cannot be imaginary. The fact that there is such a thing as probability implies the existence of certainty. Where shall I look for certainty ? In myself. Certainty is there as a fact of inner observation. There are my inner mental states — my sensations, feelings, etc., whose existence cannot be doubted even if the existence of the objects to which they correspond is doubted. I am certain also of my own consciousness at that moment. To doubt my existence is to assert my existence. To doubt also implies that I will remember, live — for doubt rests upon these former ideas. The temporary character of the material world only strengthens the reality of this inner world. The existence of the material world cannot be demonstrated, and so man is driven inward to find a basis for its reality. Thus by a deep insight, although without much logical reasoning, Augustine transcends Aristotle, and anticipates modern thought by finding reality in the *unitary personality*, whose existence is an inner certainty.

But Augustine is driven farther inward ; for the certainty of the existence of God is involved in this inner certainty. My doubt about the character of the world of material things implies that their truth exists and that I have the capacity for measuring it. Such truths are universal. They transcend the individual consciousness, and their mutual agreement unites all rational beings in a common standard. On the other hand, this

unity of truths implies the existence of God. Truths are the Ideas (Platonic) in God's mind.¹

Full knowledge of God is denied to man in this life, but, nevertheless, all morality consists in love for God; all science is only an interest in the working of God in nature; all the beauty in the world around us points to the harmonious ordering of God; the history of the world is only the free act of God. Thus, in brief, does Augustine centralize the principle of inner spirituality — of "internality." Thus does he put into control the certainty of consciousness.

This was Augustine's great contribution to the world both in the sphere of philosophy and religion. We shall see how important this principle is in our tracing of modern philosophy. Its importance upon the growth of religion was so very great that we cannot pass it by without remark. "Augustine was the reformer of Christian piety." In the midst of religion he discovered religion. He looked into the human heart and found it to be the lower good; he looked to God and found Him to be the higher good. In love for God, man becomes exalted to another being. This is the "new birth." By this personal religion nature and grace are separated, but morality and religion are united. Sin is the disposition to be independent by living in a state of unrest in the desires. Sin is a state of lust and fear. All is sin in the heart of the natural man — in the heart apart from God. The pre-Augustinian religion of morality and baptism, animated by

¹ There is this difference between Augustine's position and that of Descartes. Augustine's *Quod si fallor, sum* is a refutation of the doctrine of probability of the Academy, not a demonstration; Descartes' *Cogito, ergo sum* is positive, — a subtle but an important difference between the two thinkers.

hope and fear, was supplanted by him with the conception of the desire to be happy by sharing in the bliss of God. Augustine passed from Christian pessimism to Christian optimism, to a confidence in pardoning grace. By faith and love God calls us back to himself and the soul acquires what God requires. Religion is personal and a thing of the heart. "Love, unfeigned humility, and strength to overcome the world, these are the elements of religion and its blessedness; they spring from the actual possession of the loving God. This message Augustine preached to the Christianity of his time and of all times."¹

But Augustine philosophically breaks with his own Platonism at one point, and finds not in the intellect, but in the will, the primary characteristic of this consciousness of inner certainty. The will is the inmost core of our being. All our mental states are formed under the direction of the purposes of the will. The striking exception to this is the cognition of the higher divine truth, in the presence of which the mind can be only passive. Revelation cannot be the production of the finite activity, but it is an act of grace before which the will is expectant and passive. Knowledge of the divine truths of the reason is the blessedness that results from the will of God and not of man. The will of man is transformed into faith, and yet even then an element of the human will is present, although passive, for the appropriation of the truth is an act of will. Thus, in regard to this difficult subject of the nature of the will, there are two observations to be made: (1) Augustine conceives the will, memory, and intellect as so intimately related as not to be faculties of the per-

¹ Harnack, *Hist. of Dogma*, vol. v, p. 337.

sonality like the properties of a substance. They rather form an indissoluble unity of the substance of the soul.

(2) The will is theoretically free, and Augustine is one of the most forcible defenders of free-will because he is also a defender of ethical responsibility and the justice of God. Theoretically the will is a force existing above sensuous nature and formally possesses the capacity of following or resisting inclination. Actually it is never free to choose, but it has the higher function of being determined by the Good. Only the good will is free.¹

The Authority of the Church according to Augustine. With the fall of ancient Rome, the church was hard pressed, for the young peoples who came into the church were Arian and the only German Catholic nation was the Franks. Augustine was a man of vigor, but he seemed to lack the peculiar power of forcing the church to adopt as dogma the truths for which he stood. He always submitted himself absolutely to the tradition of the church, and yet in a general way he accomplished two things for the church at large: (1) He established tradition as the authority and law of the church; (2) He offered the church a scientifically constructed plan of salvation.

There now appears in Augustine's teaching the second centre around which the masses of his thought group themselves. This is his conception of the church in its authority and law. Here is the principle of universality — and historical universality — and it runs counter to the principle of spiritual individualism which his psychological analysis had built up. Augustine is just as vigorous a champion of the idea of the church as the means to salvation as he is champion of the indi-

¹ Harnack, *Hist. of Dogma*, vol. v, p. 112, n. 4.

vidual certainty of truth. The two antithetical propositions lie together in his mind. As a pietist, he was an individualist; as a priest, he was a loyal subject to dogma. We have discussed his teaching as it centred about man; now the discussion centres about God as represented by His church. In practical life the will of man is important, but in the eternal life the central influence is the grace of God. Between the will of man and the grace of God there is a chasm. This is felt the more by Augustine, and the necessity of a God-centred doctrine seems the greater, when he beholds the contrast between the perfectness of God and the evil world of men. Evil now appears to him as a great stream flowing through the world. Humanity is by nature void of God. Theoretically man is free, but in the actual world he is chained to his senses and to sin. Adam, the first man, alone could have possessed freedom; but Adam in his freedom sinned, and his sin was that of the whole human race. Sin is therefore original to all men now living, and no man personally deserves salvation, however meritorious his conduct. Moreover, as the result of Adam's sin, all men would be damned were it not for the grace of God. The God-man by death brought power to replenish empty humanity with divine love. Divine love is the beginning, middle, and end of salvation. Out of this love God has sent His Son and founded His church. Universal man died, and only universal man can save. Belief in Christ is the only means of salvation, yet belief in Christ comes only by God's grace, and divine grace is not conditioned on human worthiness. Thus it is only by grace even now that man is saved; and no injustice would be done to men were all damned. On the other hand, divine

justice demands that some men at least should be excluded from salvation in order that the punishment for Adam's sin be permanently maintained. The choice of the favored ones depends entirely upon the unsearchable decree of God. These are elected as monuments of His loving grace, while the others are elected to be damned as monuments of His justice. The apparent calamity to the majority of mankind only shows the goodness of God the more. For, in the first place, evil is not positive like the good. It is only negative and primitive—the absence of the good. The condemnation of the wicked is therefore no defect in this theocratic system. In the second place, the wicked only receive justice, for the salvation of only a few is a gratuitous act of love, which testifies to God's mercy. But, after all, it is the integrity of the whole spiritual imperial government of God that is the important thing to consider. The King is law and goodness, and all His subjects are testimonies of His magnificent power.

The Dark Ages (476–800). The traditional estimate of the Middle Ages as altogether “dark” has been revised by modern scholars. The period now called the Dark Ages has been restricted to the three hundred years between the fall of old Rome (476) and the founding of the empire by Charlemagne (800). Moreover, it is now thought that even in that period the intellectual conditions were better in Italy than north of the Alps. In northern Italy the lay teacher seems always to have existed; and education never to have fallen entirely into the hands of the monastery as it did in northern Europe between 800 and 1000. After 800 the content of education north and south of the Alps seems to have been different. Everywhere, to be sure,

education was comprised by the "seven liberal arts," but the emphasis in the two regions was different. North of the Alps the dialectic was made important, and theology and logic flourished. In Italy the emphasis was upon grammar and rhetoric, and "literary Paganism" was always kept alive. Thus, when the revival came in 1200, it appeared in the form of theological controversy north of the Alps, while in Italy in the form of legal science. The analysis in the summary of the Middle Ages given above (see p. 330) applies more truthfully to the northern countries than to Italy. At the same time it is more pertinent to the history of thought, for in these northern regions, especially at Paris, mediæval philosophy was developed.

Nevertheless, it is easy for the modern scholar to go too far in trying to play fair with the Middle Ages. The first three centuries of this time were a Dark Age everywhere in Europe. Wave after wave of barbarian invasion swept over the land. It is not so much a matter of surprise that four hundred years lie between the first two philosophers, — but the matter of surprise is that there were any philosophical fruits whatever. In this respect the year 529 is significant — significant both in pointing backward to ancient culture and also in pointing forward to the feeble effort to retain some of that culture. In 529 Justinian abolished the philosophical Schools at Athens; in 529 also, St. Benedict founded his monastic school at Monte Cassino (near Naples). These two events stand for the death of antiquity and the birth of mediæval life. In this beginning of the monastic movement by St. Benedict in western Europe was lodged, as it turned out, the hope of education for the mediæval man. During the two

hundred years between the year 800 and the year 1000 mediæval education was entirely in the hands of the monks.

The Revival of Charlemagne (800–900). The darkness of the Early Period of the Middle Ages is broken by the somewhat abortive renaissance of Charlemagne. Connected with this revival is the name of John Scotus Erigena (810–880). Note that during these five hundred years there are only two notable philosophers, Augustine and Erigena. Note that a span of four hundred years lies between them. Also note that the first philosopher, Augustine, was a Roman and the second, Erigena, was an Irishman. Thereby hangs a tale. During all those long centuries of the Dark Ages after Augustine and until Charlemagne, the light of science shone scarcely in northwestern Europe. In the whole western hemisphere there were only three places where learning prospered: one was in the far east, among the Arabians; another was at Constantinople; the third was in the far west, in Britain. Thus it was from Britain that Charlemagne had to call his educators, Alcuin and Clement, to promote learning among the Franks; and it was from Britain, too, that his successor, Charles the Bald, called the Irishman, Erigena, for the same purpose. During the renaissance of the great Charles and his successors, Irish scholars could be found in every monastery and cathedral in the empire. The teaching was soon called the “Irish learning.” Still it must be said in qualification that the renaissance at the court of Charlemagne was a rather childish attempt to unite antiquity with theology. Excepting in the case of Scotus Erigena, the revival was very feeble. It consisted of a new effort to understand Augustine, to master the

simplest rules of logic, and to think out dogma by means of Hellenism. The period from 800 to 1000 is called the Benedictine Age, because learning was entirely in the hands of the Benedictine monks. From the impulse given by the Irish scholars many celebrated monastic and cathedral schools originated, like those of Tours, Fulda, Rheims, Chartres, and the school at Paris. From the many monastic schools emerge the names of Alcuin of York, Rhabanus Maurus of Fulda, and Gerbert at Rheims. But among these scholars the only one of philosophical importance is John Scotus Erigena.

John Scotus Erigena (810-880): Life and Teaching. When his contemporaries were only lisping at philosophy and his immediate successors were absorbed in disconnected problems, Erigena worked out a connected system. Like Augustine, Erigena stood far in advance of his age. He was not only the one great thinker of the revival of Charlemagne, but he was one of the most remarkable personalities of the Middle Ages. Born in Ireland, he had the benefit of an education in the schools of that centre of learning, which he could not have obtained on the continent of Europe. In 853 he was called by Charles the Bald to carry on the work begun by Alcuin under Charlemagne. Three centuries after his death the church condemned him as a heretic (1209) on account of his writings on predestination and transubstantiation. His learning was so great that he has been called "the Origen of the North." He read Greek, and this was a rare accomplishment in those days, for even Alcuin scarcely knew the Greek alphabet. His most notable original work is *De Divisione Naturae*, which was neo-Platonism in Christian dress. His most influential work was his translation of the *pseudo-Dio-*

nysius, the Areopagite. It proved, in fact, to be one of the most influential books of this period, and was instrumental on account of its large circulation in propagating neo-Platonism in the Middle Ages.

Erigena was neither a scholastic nor a dialectical theologian. He neither assailed nor defended church doctrine. He calmly pushed neo-Platonism to the borders of pantheism. He was an Irishman with a Greek mind, a neo-Platonist under the veil of a Christian mystic. No churchman ever expressed neo-Platonism so frankly. The writings from which Erigena got his doctrine are called the *Pseudo-Dionysius* writings because the authorship was falsely attributed to a companion of St. Paul, Dionysius the Areopagite. They were, however, probably written in the fifth century, for they are essentially neo-Platonic and border on pantheism. Erigena translated them at the request of Charles the Bald, and their appearance produced great astonishment in Europe (858–860). Erigena's own work, *De Divisione Naturae*, is an extreme pantheistic statement of the doctrine in the *Pseudo-Dionysius*. Briefly stated Erigena's teaching is as follows. God is an incomprehensible being and can be described only in negative terms (negative theology). (See chapter on Philo.) God is the same as Being or Nature, and He unfolds Himself as a fourfold series. These are: God, the world in God, the world outside God, God after the world has returned to Him. God contains in Himself through the Logos all the primordial types of things formed before creation. Creation is the logical unfolding of particulars from the universal. Immortality consists in the particulars again becoming universal. In the types of things God is creating Himself, and they

are graded from God down to concrete objects. But all will finally return to God, and Erigena thought he found analogies of this return everywhere in nature.

The Greek Principle which Erigena formulated for the Middle Ages. These details of the teaching of Erigena are unimportant except as they throw light upon that Greek underlying principle which he formulated for the Middle Ages. *The Real is the Universal. The more universal a thing is, the more real and therefore the more perfect it is.* If we have an idea of a universal, that universal has existence because it is universal. The idea of God is universal, therefore God exists. The idea of the world is a universal, but not so universal as the idea of God, and therefore not so surely existent. But the idea of the world has more reality than the idea of a tree. Mediæval philosophy becomes from this time on a *logical theism*. In the case of Erigena it is a logical pantheism. The world is a logical mosaic. Real dependence is logical dependence, and what we in modern times call the causes and effects between natural objects are regarded by the Middle Ages as sufficiently explained if put in logical arrangement. This is the core of mediæval thinking, and the student will fail to understand the civilization of the Middle Ages unless he grasps this central principle.

But this realizing of the logical universal is Greek and betrays the fundamentally Greek character of mediæval civilization. The objective spiritual church has merely taken the place of objective nature. Mediæval history is a conflict between Greek universalism and the Christian conception of the individual. In Erigena the Greek element appeared in overwhelming dominance. Erigena is a smaller Augustine — Augustine

uncontrolled by great masses of thought and uninspired by practical ideals of building up the church. Erigena is a "belated Gnostic." Why was it that his neo-Platonic pantheism did not overcome entirely the individualistic element in Christian dogma? Why, on the contrary, did it bring out far-reaching issues of conflict when a century later the significance of his teaching was understood? Because inherently and fundamentally in the nature of the German peoples, as appearing in their customs and laws, was the conviction of the rights of the individual personality. In the teaching of the Christian fathers the element of the spiritual personality found a deep echo in the German nature. The German could tolerate and did actually live under the later church doctrine of a moderate realism; but the measured calm of the Greek pantheistic conception of Erigena deprived the German of all his inherited ideals. Thus when intellectual activity was aroused a century later, the conflict became hot over the issue in Erigena's doctrine. Erigena was the forerunner of the scholastics. It was he who tossed the apple of discord among the thinkers of the Middle Ages.

The Last Century of the Early Period (900-1000). The century following Erigena was one of demoralization. All learning declined with the renewed invasions from the north, east, and west. The empire of Charlemagne was broken up and the Papacy temporarily disappeared. There is a persistent tradition that the Christians at this time believed the end of the world to be near. This has been proved to be a legend, but back of it lies the truth that there was a fresh rise of piety which lasted until 1300. With this movement we enter upon the next period of the Middle Ages.

CHAPTER XVII

THE TRANSITIONAL PERIOD (1000-1200)

The General Character of the Transitional Period. The first century of the Transitional Period was as different from the last century of the Early Period in its intellectual attitude and emotional tone as can be imagined. It was the century of the new birth of Europe — a century when the beginning of political order was accompanied by a passion for inquiry. The spirit of pietism took possession of all institutions — and in the thirteenth century the mediæval system seemed to have reached its perfect form. The Transitional Period gives meaning to the Crusades. “If ever ideals were carried out in the world and gained dominion over souls, it happened then.”¹ “It was as if the world had cast aside its old garment and clothed itself in the white robe of the church.”² The ardor of the Crusades was the specific expression of this religious revival. All the pent-up energies of the previous mediæval life were passing through a rapid period of growth.

Philosophically this period is the time when neo-Platonic mysticism, as elaborated by Erigena, came into conflict with the Christian conception of the individual. These two motives had been held together without controversy in the Early Period; now they develop into controversy. The philosophical theories evolved by this controversy go by the name of scholasticism. While

¹ Harnack, vol. vi, p. 7.

² Glaber, *Hist.*, lib. III, 4.

theoretically secular studies were supposed to be discarded and ancient literature was considered to be the temptation of the devil, yet practically one is surprised to find a trained skill in the use of dialectic, and the employment of many of the materials of antiquity as a means of culture and the refutation of heresies. There was a knowledge of the classics, of dialectic, of neo-Platonism, and of Augustine. The spirit of Platonic realism prevailed among the group of schoolmen of these two centuries. The problem before this group is different from that presented to the schoolmen of the next period. The scholastics or schoolmen of this period whom we shall consider in some detail are, —

Anselm, 1033-1109.

Roscellinus, d. 1100 about.

Abelard, 1079-1142.

What is Scholasticism? In a general sense scholasticism is philosophic thought, but historically the term is usually restricted to the philosophic thinking of the Middle Ages. It has been pointed out that scholastic philosophy does not differ from any other philosophy. It had its prejudices, its dependence on authority, its employment of deduction, its use of observation — like all philosophy. The scholasticism of this time, however, is distinguished by its general reference to church dogma as authority and its imperfect use of experience. The scholasticism of the Middle Ages may therefore be defined as the application of dialectic or logical methods to the discussion of theological problems. It was the attempt to present the doctrine of the church in a scientific system of philosophy. Sometimes such an attempt resulted in heresy when the result was a changing of dogma. Generally, however, the scholastic was not so

ambitious, for he usually sought to keep within the authoritative doctrines of the church. He feared the anathema of the church. Scholasticism therefore, in general, had two characteristics: (1) It assumed that church dogma was unquestionable and infallible; (2) It tried to clarify dogma by rational explanation, or to show that dogma was at least not contrary to reason. Dogma may in some cases be explained by the reason. In some cases it may be so far above reason that the only thing the reason can say is, "The doctrine does not contradict me." In the words of an eminent churchman, "Dogma says, *Deus homo* (God became man). Scholasticism asks, *Cur deus homo?* (Why did God become man?)" Revelation is assumed; scholastic philosophy is permitted; independent rational science is denied. The remainder of the history of the Middle Ages shows no conscious attempt to form a new body of doctrine for the church; and only here and there does there appear an effort to modify the existing doctrine. The thinkers are employed in this scholastic clarifying of the doctrine. In this period scholasticism takes the form of the logical problem of the relation of universals and particulars. In the period of Classic Scholasticism this logical problem changes into the metaphysical one of the respective scopes of reason and faith.

The problem of the relation of universal conceptions to particular experiences had become a central one to the Greeks after Socrates. (See summary, p. 103.) It was natural that the same problem should arise with the new mediæval man and should delight him as an enigmatical question. But conditions were less favorable for the mediæval scholastic than for the Greek. The mediæ-

val had scanty literary materials, no opportunity of testing his discussions by empirical observations, and his mind was untrained. In the Early Period scholasticism had the character of a mental game in logic. It consisted, on the whole, in the subtle spinning out of logical questions with the few fragments of Aristotle as a guide. This was dangerous to faith, but the church could not prevent it, for it was the only mental diversion open to monks of the schools of Charlemagne. The arguments often reveal great mental acuteness, although they have the appearance of triviality. The schools of the ninth century were given over to barren formalism, and this threatened to submerge the vigorous movement inaugurated by Erigena. "Can a prostitute become a virgin again through divine omnipotence?" "Does a mouse that eats the sacrament eat the body of God?" "How many angels can stand on the point of a needle?" These are examples of the prevailing verbal gymnastics of that time, and such problems can be found even in the works of Peter Lombard, Thomas Aquinas, and Duns Scotus.

Logically stated the problem is that of the relation of particulars to universals. It is usually called the problem of the reality of general ideas. The question was started by a passage in that universally used text-book of the time — the *Isagoge* of Porphyry, which was an introduction to Aristotle's *Categories*. (See p. 102.) Porphyry divides the problem into three parts: (1) Do genera and species exist in nature, or do they exist as mere products of the intellect? (2) If they are things apart from the mind, are they corporeal or incorporeal things? (3) Do they exist outside the individual things of sense, or are they realized in the latter?

Upon the problem involved here the thinkers of the Middle Ages were divided into three schools, — realists, conceptualists, and nominalists.¹ The realist maintained that the general idea had reality, while the particular was only a defective imitation of it. The nominalist, on the contrary, held that the universal is only a name (*nomen*) or an abstraction derived from the real particular thing. The conceptualist tried to mediate between the two by showing that reality exists only in the particular. To use the mediæval phrases, realism is *universalia ante rem*; nominalism is *universalia post rem*; conceptualism is *universalia in re*. (See p. 103 for table of comparison with Protagoras, Plato, and Aristotle.) The question was of great practical importance to the church. Is the universal church real and therefore all its dogma authoritative, or are the particular churches real and authoritative? This was a vital matter to the churchman of that day who was trying to establish the primacy of Rome among the separate churches. Furthermore, to show that humanity was less real than the particular human beings would destroy the church doctrine of sin and redemption, for these dogmas depended on the assumption of the solidarity of the human race. The church universal and its universal dogma were not mere names to the schoolmen, and that is why the orthodox churchmen were nearly always realists. Religious principles were universals, while particulars were secular. Dogma had become fixed, with which traditionally the church had become identified. To emphasize particular experiences would mean the continual correcting of tradition and a substitution of private judgment for

¹ In this period the conceptualists were confused with nominalists and called nominalists.

church decrees. When nominalism is completely worked out, it will be found to conflict with church dogma at every point. The result is skepticism. Still the churchman later saw that there is great danger also in a thorough-going realism like that of Erigena's. It became pantheism. Both realism and nominalism were dangerous doctrines for the church if they were driven to their logical conclusions.

Anselm (1033-1109): Life and Position in Mediæval Philosophy. Anselm lived during the monastic revival which had begun in the tenth century. He was in fact the last of the monastic teachers, for during his declining years occurred the first of the Crusades, and the epoch following him witnessed the transference of learning from the monasteries to the universities. He was born of a noble family in Aosta, Lombardy, and entered in early life the monastery of Bec. Here he succeeded Lanfranc as abbot, and again he succeeded Lanfranc in the archbishopric of Canterbury. He was a man of genuine piety, of speculative bent, and of unswerving faith in the dogma of the church. As primate of England he resisted with much sagacity the encroachments of the secular power. His *Cur Deus Homo* was a treatise on the doctrine of the redemption and atonement, and was one of the most important books of the Middle Ages.

Anselm brought about a great change in theological teaching. Berengar of Tours had but recently made an attack upon the doctrine of the real presence of Christ in the Eucharist, and was the immediate cause of the "storm and stress" period of scholasticism that followed. Anselm's teacher and predecessor, Lanfranc, had defended the doctrine. The doctrine had not yet been

settled, and each side claimed the basis of authority. Anselm was therefore a witness of the first attempt to apply philosophy to dogma, and he was the first to use dialectics with the serious purpose of defending dogma. From this time on, dialectics was no longer an intellectual diversion. He, the last of the monastic teachers, was the first to employ dialectics with the new purpose of instructing the believer. His entire life was animated by the desire to add knowledge to faith by the means of philosophy.

Anselm's scholasticism therefore circulates about the Patristic theology as a centre ; and his spirit and method is so similar to that of Augustine and the Apologists, that he has been justly called "the second Augustine" and "the last of the Fathers." Beside the safe and traditionally centralized teaching of Anselm, the imaginative pantheism of Erigena seems like a body that had been loosened from its natural place and was floating away beyond control. Both Erigena and Anselm were inspired by the Platonism that until the year 1200 dominated the Middle Ages. That is, both were realists. The realism of Erigena, however, expressed in full the mystic element of Platonism. It destroyed all grades of reality below God, and made unnecessary the church and its offices. Erigena was an extreme realist ; Anselm was consistent with the attitude of the church in being a moderate realist. The *credo ut intelligam* (faith as the basis of intellectual belief) was the anchor which saved him and became the safeguard of all future orthodox scholastics. The world to Anselm is a hierarchy of universal reals, such as the sacraments, the church, and the Trinity. To such dogmas of the church he applied philosophy, not because they needed support, but

in order to make them clear by analysis. Philosophy shall only clarify dogma.

Anselm's Arguments for the Existence of God. The so-called "Anselmic Arguments for the Existence of God" are the best known parts of Anselm's teaching, and in the eyes of the churchman place his theodicy in the "status of a finished science." To get their cogency we must remember the underlying thought of mediæval realism; the more universal a thing is, the more real it is — the more it exists and the more perfect it is. (See p. 352.) In his *Monologium* he developed the so-called *cosmological argument*: A single perfect and universal being must be assumed as the cause of all lesser beings. God's essence must involve his existence. Every other being can be thought as coming into existence from some external cause, while God alone exists from the necessity of his own nature. In his *Proslogium* he elaborated his more famous *ontological argument*: Man has the idea of a perfect being; Perfection involves among other qualities that of existence, otherwise we could think of a more perfect being or one who did possess existence; Therefore God exists.

Roscellinus (d. 1100 about): Life and Teaching. Roscellinus, a canon of Compiègne, was the first scholastic to attempt to modify dogma by the dialectic, — not that there had not occurred throughout the history of the church many theological controversies. Before this time such controversies had on the whole arisen over doctrines that had not yet become dogma. The particular object of the attack of Roscellinus was the dogma of the Trinity, and the base of his attack was none other than philosophy. Roscellinus completely failed in getting the church to modify this particular doctrine,

but he succeeded in a larger way than he could have imagined. He brought out into distinctness the issue between reason and revelation. The fundamental question thereafter was as to the rights of the human reason and the rights of divine revelation. Roscellinus supplied a powerful shock to faith and awakened the schools to the consequences of questions which had seemed before to be merely logical problems.

Roscellinus was a nominalist, and it was from the point of view of nominalism that he attempted to change the dogma of the Trinity. He made a life-long defense of the doctrine that the Godhead was three different substances, agreeing only in certain qualities. This is tritheism and not a Trinity. But this was only the most striking example of his application of the general principle of nominalism. In general, universals are only names and have an existence only in the human mind. *Universalia post rem*. Individuals alone exist. The groups formed out of many individuals by addition, or the parts of an individual formed by division, are mental affairs and have no reality. Roscellinus was opposed by Anselm, condemned by the church, and obliged to recant. He fled to England, returned to France, and again preached his doctrine.

Storm and Stress. After the issue was brought to a head by the nominalism of Roscellinus, the twelfth century was torn in battle over the reality of general ideas. The realists, on the one hand, tried to grade universals and to show how universals are related to particulars — all of which Anselm had left to faith. How do universals, such as the persons in the Trinity, the church, the sacraments, exist in one universal God? Grotesque explanations were offered, like the imaginative work of

Bernard of Chartres and the symbolic number theory of his brother, Theodoric. William of Champeaux, a teacher of Abelard, almost reduced realism to a pantheism. Nothing exists but the universal; all individuals are accidental modifications of the universal. Pantheism was so inherent in the blood of realism that it was always appearing here and there.

Such pantheistic deductions by the realists brought out nominalism in opposition, in spite of the repression of nominalism by the authorities of the church. The nominalists sought protection and authority under the name of Aristotle, for his conceptualist doctrine was not known at this time. The few writings of Aristotle then known were very imperfectly interpreted. One of the most ironical situations in the history of the Middle Ages is that, up to the Period of Classic Scholasticism, Plato was the authority of the orthodox and Aristotle of the heterodox.

The Life of Abelard (1079-1142). Abelard had both Roscellinus and William of Champeaux as teachers. He quarreled with them both and set up a rival school of his own. He taught in various places and was, with some interruptions, in Paris from 1108 to 1136. The university did not exist until a generation after him, but he was its true founder, for he inaugurated the movement out of which the early universities sprang. His method was transferred from philosophy to theology and thence to all studies. It was a *didactic method* of drawing conclusions after an empirical enumeration of the *pros* and *cons*. Abelard was acquainted with no Greek writings except in Latin translations. His great talent as a teacher and his keen French intellect, that was impatient of all restraint, made him, however, the

most brilliant of the schoolmen. Two synods condemned his teaching. Probably his modern popular reputation rests upon his unfortunate love-relations with Heloise.

Abelard's Conceptualism. Universals exist in the Particulars. Abelard formed the storm-centre of the strife over the technical relations between particulars and universals. His position has been misunderstood because he, the pupil and opponent both of Roscellinus and of William of Champeaux, fought each with the weapons of the other. He was repelled from pantheism, which appears to him to be the logic of realism, and he recoiled equally from the sensualistic outcome of nominalism. Universals are the indispensable forms of knowledge, and they must therefore have some existence in the nature of the things which we know. This existence consists of the similarity of the essential characteristic of things. This likeness is not a numerical identity, but a unity which makes our knowledge of the particular things possible. This likeness or similarity between things is the same as the types created by God. Thus the universal has no independent objective existence, and on the other hand it is not a mere word out of all relation to things. The universals exist in three ways: (1) they exist before the things only as Ideas in the mind of God; (2) they coexist with the things as the essential likenesses of things; (3) they exist after the things in the human mind, when it has knowledge of things. Abelard developed his theory only polemically and never worked it out systematically. On the technical side of this question the preceding lines of thought come into an unsystematic unity. His theory was accepted by the Arabian philosophers and is practically that of Aquinas and Duns Scotus. With Abelard the

problem was not solved indeed, but it came to a preliminary stop in this statement — universals have an equal significance, *ante rem* in the mind of God, *in re* in nature, *post rem* in human knowledge.

Abelard's Rationalism. — **The Relation between Reason and Dogma.** The proud, self-reliant, self-conscious Abelard could be nothing else than a rationalist. He was the type of the controversial metaphysician. He was the fighting dialectician,—intolerant of restraint, devoid of respect for authority, seeking the prize of victory at any cost. Erigena, as a mystic, harmonized reason and dogma because they are equal; Anselm, as an orthodox scholastic, harmonized them because reason is subordinate to dogma and conforms to it; Abelard, as a rationalist, harmonized reason and dogma because dogma is subordinate to reason and conforms to reason. To Anselm reason merely clarifies dogma; to Abelard "dogma is only a provisional substitute for reason." Anselm never questions dogma, while Abelard calls dogma before the bar of the reason and then acts as dogma's advocate. We must try all dogma in court, and, contrary to modern legal practice, we must doubt it until it proves its innocence. For "it is through doubt we come to investigation, and through investigation to the truth." A good example of Abelard's attitude appears in his *Sic et Non*, a treatise in which he sets the views of the Fathers over against one another so that the reason may decide upon the truth. Another example of his method appears in his examination of the doctrine of the Trinity, and in the third book of *Christian Theology* he cites twenty-three objections and in the fourth book answers them. This rationalizing spirit led him to advocate the doctrine of free-will, to place the

responsibility of moral conduct and theoretical belief upon the individual, to regard Christianity as the consummation of all religions and not as the presentation of anything new.

If in these discussions he was more brilliant than profound, if he wrote upon many questions without solving any, if the weight of his personality could not prevail in his controversies, it was because the science of the twelfth century offered him little empirical support against the actual power of the church and the mighty inward strength of faith of the people. What means had Abelard to support his position that rational science should determine faith? Nothing but the hollow methods of scholastic logic and the traditions of the church — the very things against which he was rebelling. Abelard set for himself a problem, but he lacked the means of its solution. It was, however, a problem that has never vanished from the memory of the European peoples.

The unrest in Abelard's teaching is representative of the last century of this period, which he brought to a close. There was growing a general revolt from the unfruitful methods of the scholastic dialectic, coupled with feverish desire for knowledge. There was, on the one hand, a great reaction toward mysticism with the Victorines, Bernard of Clairvaux and Bernard of Tours, and toward eclecticism with John of Salisbury and Peter the Lombard. On the other hand, there was an interesting growth in empirical science. But these theoretical interests were but eddies in the great current of events. For Jerusalem and the Holy Land, the memorials in earthly form of all the ideals sacred to the mediæval mind, had fallen into the hands of the infidel! The

western world was preparing for the rescue, and the Crusades were the last and the frenzied expression of the Platonic idealism of the Middle Ages. They bring the first two periods to a spectacular climax. Is it a mere coincidence that Abelard brings to a close the dominance of idealism on the theoretic side at the time when earthly symbols of that idealism were being destroyed?

CHAPTER XVIII

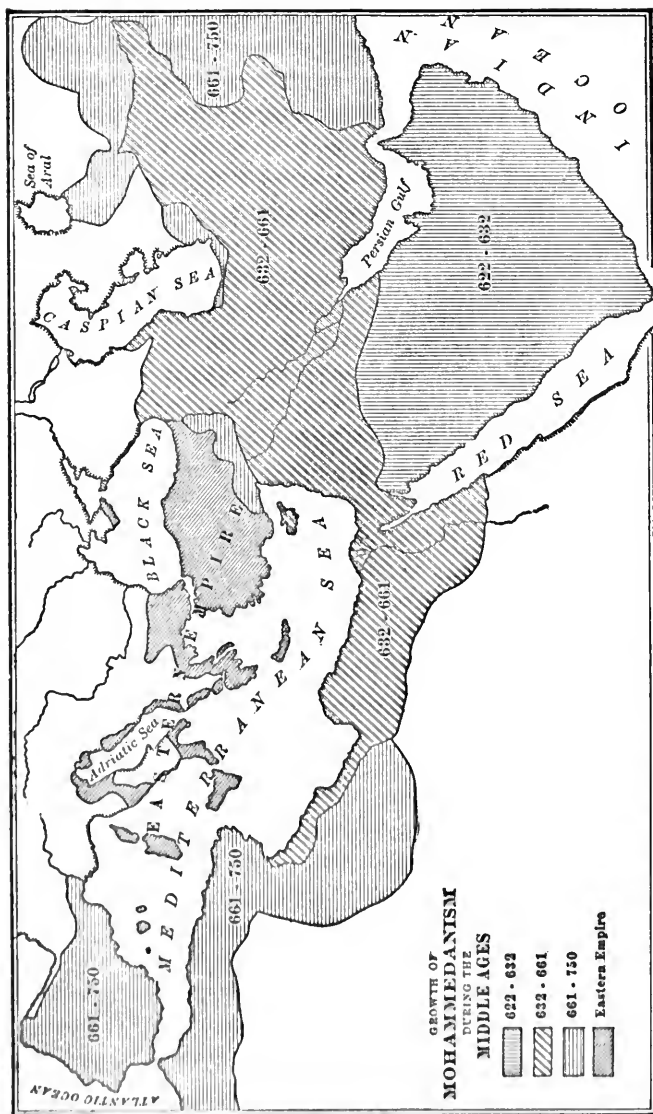
THE PERIOD OF CLASSIC SCHOLASTICISM (1200-1453)

The General Character of this Last Period. The first one hundred and fifty years of this period was the golden age of scholasticism ; the remaining one hundred years was a period of decline. The period of Classic Scholasticism was a natural growth from the Transitional Period. At the end of the Transitional Period the church, in spite of Mohammedans, Jews, heretics, and the classics, outshone all else, and its life and dogma were the most worth while. In this period appeared a theology, adequate to its life and dogma, — a theology which was floated by the wave of piety of the Mendicant Orders. Acquaintance with the true Aristotle was the needed stimulus. The favorable conditions for that stimulus were (1) the triumph of the church and papacy, (2) the intense piety of the Mendicants, (3) the general culture derived from an inner development of the church and from contact with the East in Constantinople, Palestine, and Spain. Aristotle and the Mendicants were the new forces, and they achieved their position against the hostility of the old Orders, the universities, and the teachers. The triumph was possible because the new forces contributed nothing really new, but merely completed the old scheme of things. The new Aristotle, as it was understood, taught metaphysics, epistemology, and politics in a way to vindicate dogma as against the opposition of William of Champeaux and Roscellinus. The Mendicants on their part vindicated

all dogma by blending it with faith on the one hand, and with reason on the other.

The scholasticism of the Transitional Period was predominantly controversial, while the character of this period, which we are now entering, is synthetic and constructive. The infusion of fresh blood into culture, from not only the logical but the physical works of Aristotle, resulted in the renewal of interest in the dialectic and in the construction of systems of metaphysics and psychology. *The central problem now concerns the respective scopes of reason and faith*, and to its solution logic and psychology are applied. A complete solution seemed to be made by Thomas Aquinas, which had its literary expression in Dante. Without the introduction of any new philosophical principle the world of nature, as interpreted by Aristotle, was apparently brought by Thomas into theoretical harmony with the Augustinian conception of the world of grace. But no sooner did Thomas seem to have formulated scholastic philosophy for all time, than controversy broke out afresh. For pantheistic mysticism gained its independence through one of Thomas's own brother Dominicans, Eckhart; then Duns Scotus, a Franciscan, drew up a metaphysical programme based upon the Augustinian theory of the will, and gave a new direction to philosophy; and furthermore nominalism grew great upon Aristotle's logic and the new empirical psychology. For the churchman, philosophy reached its completeness in Thomas Aquinas. The later tendencies are regarded by the churchman as deteriorations, and even modern philosophy is looked upon as but temporizing with the classic system of Thomas.

The Two Civilizations. This is one of the periods of



GROWTH OF MOHAMMEDANISM DURING THE MIDDLE AGES, SHOWING ITS CONTACT WITH CHRISTIAN CIVILIZATION

‘The Conquests of the Mohammedans during the different epochs are shown by the different shading and the dates placed on the map.’

thought resulting from the shiftings of distinct civilizations. We have already noted the influence of the struggles of the Orient and the Occident in the Persian wars and in the campaigns of Alexander ; and we have lately seen an entirely new epoch ushered in by the invasions of the northern tribes into Rome. With the new epoch before us, we find ourselves confronted with another new ethnic situation. The civilization of the Mohammedan had grown in mighty strength in the East, had possessed itself of Asia Minor, northern Africa, and Spain, and was now facing Europe from the east, west, and south. All through the First Period of the Middle Ages the Christian and Mohammedan civilizations had been contestants for supremacy. Only as late as 732 the Mohammedan claim upon Europe had been defeated at the battle of Tours. Mohammed (570-632) converted the whole of Arabia to Islam during the ten years between his Hegira (622) and his death. His successors took Palestine (637), Syria (638), Egypt (647), Persia (710), all north Africa (by 707), invaded Spain (711), and were repulsed at Tours (732). All this occurred within a century, and for the next two hundred years (800-1000) the Mohammedans harassed Rome and the islands of the Mediterranean. With the two civilizations facing each other on the Mediterranean, only mutual religious fanaticism could stand in the way of their mutual cultural influence. In point of fact, because of fanaticism the cultures of the two civilizations during the first centuries of the Middle Ages touched each other but little. In those first centuries of the Middle Ages, when western Europe was shrouded in darkness, the schools of the Arabs at Bagdad, Basra, Kufa, and other cities were enjoying a splendid intellect-

ual life. From 850 to 1100 the centre of learning of the world was in the Arabian cities of the East.¹ In 1100 the fanatical faction of the Arabians crushed this intellectual movement in the East, the scholars fled to Spain, and for a century longer Saracen learning flourished in Spain, especially in Cordova. In 1200 the Arabian orthodoxy made itself felt in Spain, and the Arabian scholars there had to find refuge among the Jews or Christians.

The First Contact of the Two Civilizations. From the beginning of the Middle Ages the point of contact between the two civilizations was either war or commerce. The Jew was the globe-trotter of that day, and was constantly bringing into Europe reports of Arabian civilization. He was a philosopher, a monotheist, a Semite, like the Arab, and he had an interest in more than commercial matters. About the end of the Early Period of the Middle Ages he found it profitable to make first Hebrew and then Latin translations of Arabian learning, and to sell them in Europe. In this form, between 1000 and 1100, medical and astronomical knowledge entered Europe. Greek philosophical writings came next in translations from the Arabic, which had previously been translated from the Syriac. Thus for the two hundred years, between 1000 and 1200, the Christian schools were beginning to read portions of Greek philosophy in Latin, which had previously passed through Syriac and Arabian (and sometimes Hebrew) translations. Before 1200, there were none but these Arabic versions. A pertinent example of these was the works of Aristotle. Before 1200 all of Aristotle's writ-

¹ Historians are attaching more importance than formerly to Constantinople as an intellectual centre of that time.

ings, except the *Organon*, appeared in Europe in this form, and the *Organon* as a whole was not known until 1150. In 1125 some of Aristotle's physics was known by the school of Chartres; in 1200 all the physics, metaphysics, and ethics were known in translations from the Latin and Hebrew. These were accompanied by Arabian commentaries, which interpreted Aristotle as if he were a neo-Platonic pantheist. There were many churchmen interested in the work of translation, as, for example, Gerbert, and Raymond of Toledo. Roger II of Sicily (d. 1154) and Frederick II (d. 1250) had their courts filled with Arabian philosophers. Frederick had many translations made and presented to the Universities of Oxford, Paris, and Bologna.

Thus the influence of the Arabian upon the Christian culture before the Classic Period of the Middle Ages was not inconsiderable. But this must be said of Arabian culture — it was mainly borrowed. Arabia* acted merely as a transmitter of the materials of knowledge from the Greeks and Hindoos; and so far as philosophy was concerned, the Arab was returning to Europe, in a perverted form, the Aristotle which had been deposited with him centuries before. The Mohammedans were the world's carriers of a considerable body of science and of many new agricultural products; and of the amount which they introduced into Europe only a small portion was their own. At the end of the twelfth century the Christian at Rome and York was richer in the principles of discovery, but poorer in the amount of traditional learning and of scientific wealth, than the Mohammedan at Bagdad and Cordova.

* Read on this point Seignobos, *Hist. of Mediæval Civilization*, pp. 117 f.

The Conflict between the Two Civilizations. — The Crusades.* The rivalry between the two civilizations became intensified into an open conflict about the year 1100. Up to the year 1000 the Mohammedan leaders were Arabians, but in the eleventh century these Arabians were conquered by tribes of Turks or Mongolians from the north of Asia. These became converted to Mohammedanism, but they had no love for culture nor reverence for the places in Palestine, which were sacred alike to the Christian and the Arab. From the fourth to the twelfth century the pilgrimages of the Christians, individually or in multitudes, largely increased, but in the eleventh century the new race of Mohammedan Turks made the access to Jerusalem more difficult. They began to subject the pilgrims to cruelties, so that the Christian was beginning to find the door of his Holy Land closed to him. Then did Platonic Christianity rush to the rescue of those sacred places that symbolized its ideals. This onslaught upon the Mohammedans came in a series of surges, traditionally spoken of as the eight Crusades.¹ The Crusades resulted quite contrary to the expectations of the church, for the Crusad-

* Read Emerton, *Mediæval Europe*, pp. 358-397; Adams, *Civilization during the Middle Ages*, pp. 258-278.

¹ THE CRUSADES

<i>Major Crusades</i>		<i>Minor Crusades</i>	
First Crusade,	1096-1099	Fifth Crusade,	1216-1220
Second "	1147-1149	Sixth "	1228-1229
Third "	1189-1192	Seventh "	1248-1254
Fourth "	1202-1204	Eighth "	1270-1272
Children's "	1212		

It will be noted that five of these nine Crusades occurred within thirty years of the year 1200. The First Crusade resulted in the capture of Jerusalem and the founding of a kingdom. The other Crusades were directly or indirectly concerned with the defense or recapture of that kingdom.

ers failed in permanently recapturing Jerusalem. But the Crusades accomplished the unexpected thing — they awakened Europe. The effect of the Crusades upon Europe was far greater than upon the Orient. The results may be enumerated as follows: —

1. The dormant European intellect was shaken up by contact with the heathen, whom the Europeans had previously despised, but whom they found to be their superiors.

2. A new national rivalry was aroused among the Christian soldiers. This national spirit was helped negatively by the losses among the feudal lords.

3. Commercial activity was given an immense impulse. A new social class was formed, which allied itself with the kings against the feudal lords. Trade was opened with the East, revealing new luxuries and new needs. Venice, Pisa, and Genoa, and in a secondary way also the German, French, and English towns, became prosperous commercial centres.

4. The power of the Latin church was extended.

5. *The works of Aristotle were introduced in translations direct from the original Greek.* In the fourth Crusade Constantinople was captured by the Crusaders (1204), and in this way the treasures of the Greeks were opened to the western scholars. The complete works of Aristotle were introduced into western Europe at a time when Aristotle was being interpreted as a pantheist by the Arabian commentators.

The Revival of Learning. The need of learning, that had been felt in the twelfth century, was now being satisfied. The entire logic of Aristotle and his entire natural science gave the new materials for knowledge. These came into Europe within the century between 1150 and 1250, (1) through translations from the Ara-

ing that emphasized the intellect rather than the will, gained by being confirmed by the systematic intellectualism of Aristotle. The founder of this was Albert of Bollstaedt; the organizer and literary codifier was Thomas Aquinas; the poetic expression was Dante. The new centres of learning were Paris and Constantinople. The centres of teaching were transferred from the monasteries to the new Universities (1100-1300). Salerno had its beginnings in the latter part of the eleventh century. Bologna in law, Oxford in general culture and theology, Paris in the same studies, show traces of general organization between 1160 and 1200. There were established seventy-nine of these universities between 1150 and 1500. They were not "founded," but grew up as part of this movement.*

Nevertheless, the struggle was a full century long before official recognition of Aristotle came. The name of Aristotle had been associated with pantheism for many years, on account of the Arabian versions of his teaching. The neo-Platonic doctrine of emanations, with its pantheism in the Arabian versions, was a tendency of which the church had been shy since the days of Erigena. Until the theistic character of Aristotle's teaching became assured by the direct Latin translations from the Greek, there was a powerful reaction against the whole of the new learning. The church had condemned the *Physics* in 1209 and the *Metaphysics* in 1215. But in 1254 Aristotle was officially recognized, and fifty years later he became the guide of the church, whom no one could contradict without being accused of heresy.

* Read Norton, *Readings in the Hist. of Education*, pp. 102-103.

The Catholic church never showed its ability to greater advantage than in its dealings with the new problems of this period. The people of a purely religious epoch now came into possession of Aristotelianism. For centuries the intellect had been starving on formal logic. An intellectual revolution was imminent. Here in Aristotle was presented a rich theory of nature that the church had never considered. Yet it is doubtful if Aristotle would have been accepted, had the Mendicant Friars — the Dominicans and Franciscans — not succeeded in establishing chairs in the University of Paris. These monks did not love philosophy in itself. They saw, however, that philosophy must be able to defend itself against infidel philosophy by the weapons of philosophy. But curiously enough, Aristotelianism, which was the spring of this renaissance, became, by its incorporation into the church, the great obstacle to the real Renaissance two hundred and fifty years later.

The Strength and Burden of Aristotle to the Church.

1. **The Strength of Aristotle to the Church:** (1) Aristotle elaborated for the church, with great clearness, the conception of a transcendent God. This was a weapon for the church against neo-Platonism and mysticism. (2) Aristotle gave to the church a theory of nature that supplemented its theory of grace. (3) Aristotle established a philosophical standard for the truth of things. This proved of great value to the church because it was under the control of the church. In the first two periods of the Middle Ages philosophical thought had a relative independence because it was without a recognized standard; now philosophy could be controlled by the standard of Aristotle. For example, with the coming of Aristotle there came certain

standard definitions of substance, person, nature, accident, mode, potency, and act.

2. The Burden of Aristotle to the Church: (1) Aristotle encouraged a taste for science and analysis. At first the Aristotelian influence in this direction was very small, but its growth was only a question of time. (2) Aristotle became for the church a second standard. The problem for the churchman now became a double one: (a) Is my teaching consistent with church dogma? (b) Is my teaching consistent with Aristotle? "My son," was the reply to a youth who thought he had discovered spots on the sun, "I have read Aristotle many times and I assure you there is nothing of the kind in him." Dogma, not now the only standard, is not infallible. The reason need not follow dogma, but its own standard. Revelation became a realm of mystery which the reason could not reach, but to which it pointed. A doctrine thus might be of such a nature that it might be philosophically true, but theologically not true.

The Predecessors of Aquinas. Many distinguished names stand at the close of the Transitional Period and the beginning of the Classic Period. These express the transitional character of the thought of the threshold of this time. They show, like Abelard, the tendency toward rationalism. Alexander of Hales (d. 1264), William of Auvergne (d. 1249), Vincent of Beauvais (d. 1246), Albert of Bollstaedt, called Albertus Magnus (d. 1280), show the influence of the new Aristotelian science. Albert was the teacher of Thomas Aquinas. The attempt of Thomas to form a theological system for the church was anticipated by the so-called *Sums* of the twelfth century, of which the work of Peter the Lombard was the model. The four books of *Sums*

of Peter were collections of opinions of the Fathers on questions of dogma. They show the influence of Aristotle and the method of Abelard. The *Sums* of Peter became for several centuries the text-book of the schools and the subject of innumerable commentaries. It was the core of Classic scholastic literature, and around it grew up the problems of metaphysics and psychology.

The Life of Thomas Aquinas (1224-1274). — **The Founder of the Dominican Tradition.** Thomas belonged to a noble house which was related to the royal family. He studied in the University of Naples, but at the age of nineteen, upon resolving to enter the Dominican order, he was captured and kept a prisoner by his brothers. After two years he made his escape, and, his family having consented to his taking orders, he went to Cologne under the instruction of Albert. He was then sent to Paris, where he obtained his degree in 1257. He was a successful lecturer at Paris until 1261, when he was called by the Pope to teach philosophy in Rome, Bologna, and Pisa. During this period he composed his greatest work, *Summa Theologiae*. He declined preferment and finally resided at Naples. He always enjoyed the highest consideration of the church authorities.

Thomas, the founder of the "Dominican tradition," was the first to formulate Christian Aristotelianism and to draw for the church the line between the realms of reason and faith. He did not so much create doctrine as he transformed and assimilated it. The sources from which he drew were many: the Scriptures, the Fathers, Greek philosophy, and the teaching of contemporary Arabians and Jews. If, as some historians maintain, he was not a thinker of the first rank, he at least relieved the church from a delicate situation by means of a con-

ciliating theology. Certainly his predecessors and contemporaries stand eclipsed by him. He satisfied the mediæval demand for order and he prevented deterioration in the church doctrine. He did not rise above his age, although he stood at the head of its intellectual movement. He was, on the contrary, the most perfect expression of scholasticism, and he was affectionately regarded as *doctor angelicus* and again as *doctor universalis*.

The Central Principle of Thomas's Doctrine — The Twofold Truth. The life-purpose of Thomas was to bring Christianity into closer relation with civilization and science. He sought to give all departments of knowledge their rights and at the same time to protect the ascendancy of religion. This was to him the same as bringing Christianity and Aristotle together, for Aristotle meant to him the entire product of ancient civilization. To the mediæval world of grace he added a world of nature, and, fully dominated by the mediæval love of order, he unfolded so comprehensive a view of life that he included all its problems. He felt that the natural and the revealed must not become a contradiction.

To accomplish this Thomas found in Aristotle his own ideal estimate of things. Looking at Aristotle through his own neo-Platonism, he naturally found in Aristotle more of the inner and religious estimate of nature than the facts will allow. Yet it was evident to Thomas that there was in Aristotle a great interest in nature and a great reserve on ultimate questions. Nature was, according to Aristotle, an essence unfolding in a system of grades. This became the central principle of Aquinas in this form: *Nature is a sketch in outline*

of the world of grace. Before the eye of the religious mind these two truths should appear: (1) the world of faith and the world of nature are two properly distinct worlds; (2) the world of faith is a continuation of the world of nature. The world of grace and the world of nature are two grades of the whole of existence. Nature is the lower stage of development, and the point of contact between it and the world of grace is the soul of man. Religion and philosophy thus have different spheres, but they are not contradictory. Grace does not destroy, but it perfects nature. Nature is subordinate to grace as man is subordinate to the Christian, the state to the church, the Emperor to the Pope.¹

The difference between philosophy and theology is not that theology treats of God and divine truths, and philosophy does not. Philosophy discusses divine truths. But the difference lies here, that theology views truths in the light of revelation, while philosophy views them in the light of reason. Yet there are truths that belong to philosophy, truths that belong to theology, and truths that belong to both. The problems of the existence of God, the immortality of the soul, and the relation of the world to God are theological problems, yet they can also be demonstrated by the reason of philosophy; but the mysteries of the Trinity, the Incarnation, and the temporal creation are beyond the scope of the reason and belong to theology. Philosophy and theology are distinct, yet they are in harmony. Theology supplements philosophy with faith; philosophy supplements theology by

¹ Dante in *De Monarchia* did not share in Thomas's subordination of the state to the church. Both Dante and Thomas believed that destiny lies in the race, but the great poet regarded man as destined equally for earthly and heavenly happiness. To Dante the church and the state are powers of like authority.

(1) establishing preliminary motives, (2) supplying analogies, (3) answering objections. Thomas accepts both propositions which had divided his predecessors: *credo ut intelligam* and *intelligo ut credam*.

Above historical revelation there is something even higher, which could be called another realm, were it not more of a hope than a possession of man. Its appearance in the doctrine of Thomas shows the influence of Plato upon him. It is the immediate union of the individual with God in mystic ecstasy.¹ It is the dome of the religious temple that Thomas has built. But Thomas was careful to insist that this heavenly glory could not be gained except through the offices of the church. The individual cannot reach God through his own unaided efforts, but the sacraments of the church form the mysterious background of the religious life.

The Problem of Individuality — The Relation of Particulars and Universals. The all-absorbing question of the Transitional Period, of the relation of particulars and universals, became for Thomas and his successors the problem of individuality. For the schoolman was obliged to define the individual and fix his place in his Aristotelian world, if he was to be successful against the pantheism of the Arabian Aristotelianism. What is the nature and standing of the individual? What constitutes the difference between individuals? The whole theological edifice of Thomas would collapse in mystic unity, the immortality of the soul would be lost and the offices of the church would be nullified, unless Thomas showed the positive nature of the individual.

¹ Dante follows Thomas in placing the intellectual virtues above the practical, and in pointing to the intellectual intuition of God as the goal of human attainment. Beatrice is Dante's expression of this ideal.

In this connection we must remember that on the whole the Middle Ages had accepted Abelard's analysis of the problem of the relation of universals and particulars: the universals exist in three ways, *ante rem* or in God's mind; *post rem* or in man's mind; *in re* or in nature. To Thomas the universals as abstractions (*universalia post rem*) in the human mind cannot be individuals, for they have no real existence. To have real existence the universal must exist *in re*, in the many, as the essence of things; not as abstraction *beside* the many.

The question of individuality therefore to Thomas concerns properly only objects *in re*, or objects in the corporeal world.¹ These are objects of Form and Matter. The question is, whether the Form or the matter of corporeal things is the principle of its individuality. Thomas says that matter is this principle, — not indeterminate matter, but matter with quantitative determinations. The difference between earthly individuals is numerical — a difference of time and space relations. The Forms of nature objects change continually according to their material conditions, but these conditions do not change. Nevertheless the quantitative determinations of individuals are not the cause, but the condition, of their existence.

But the question about the status of beings in the spiritual world, "separate Forms," is a more difficult one for Thomas. This is the problem about God, the angels, and the souls of men. They are evidently not individualized by matter. What is the principle that distinguishes them from one another? They are Forms without matter and they are individualized through themselves, since they have no need of material deter-

¹ De Wulf, *Hist. of Mediæval Phil.*, p. 323.

minations. Thus God is distinguished from everything else as pure Form or pure actuality. He is the unique individual in whom all differences merge. But so also are the angels actualized through themselves. What is the difference between God and the angels? God is an absolute genus; the angel is a relative genus, *i. e.* it is the only one of its kind. But what is the condition of the souls of men? Are they all alike or do they have a principle of distinction? Yes, they are distinguishable, for each soul upon separation from its body carries with it a love for its former body, and that distinguishes it from other souls.

The Primacy of the Will or the Intellect. Up to this time there had been no psychological dispute as to which of the faculties was fundamental. Now the question appears in full force. Much of the literature of this period is upon the question of the primacy of the will or the intellect, and it appears to be almost the leading motive of the time. Augustine had placed the will in the foreground of his teaching. His successors had never disputed the subject, but had been engaged in discussing what products of the intellect are real—the particulars or the universals. With the introduction of the intellectualism of Aristotle, there almost immediately arose defenders of Augustine. To them Aristotelianism was too rationalistic. Thomas follows Aristotle unconditionally, and with him stand the German mystics. Intellectualism becomes the central principle of what is known as the “Dominican tradition.” Duns Scotus was a Franciscan monk. He took up arms for the primacy of the will, and this became the central principle of the “Franciscan tradition.” On this point the nominalists were his allies.

The problem of the will arose first with reference to the human will. Thomas contended against Duns Scotus that man is free so far as he follows his knowledge of the good. The intellect is therefore primal, for it determines the will by showing the will what the good is.

The question next arose as to the priority of the faculties in God. Does God's will dominate His intellect or His intellect dominate His will? This was a vital point in the Augustinian theodicy. Does God will the good to be good, or does His will act according to what He knows to be good? Here lies the point at issue between the Dominican Thomas and the Franciscan Scotus. Thomas maintained that the intellect of God determines His will. The intellect is determined by the truth so long as the intellect is true to itself. Why should not the will be determined by the truth in the same way? With God this freedom for the truth is God himself. The world is the best possible world, for God has willed it out of himself.

The world is determined by goodness and man's will is determined by the same goodness. When the sense conquers the morally determined will, there is sin. The senses, and not the will, are the cause of sin.

Duns Scotus (1270-1308), the Founder of the Franciscan Tradition — Life and Philosophical Position. Thus the Middle Ages did not come to a standstill with Thomas. A greater movement existed after him than is often thought. The leading minds who succeeded Thomas refused to follow the middle course which he had mapped out. New attempts were made to relate the world of grace and the world of nature. One was mysticism, represented by Eckhart (d. 1372). The other was the reaction of the Augustinians against the intel-

lectualism of the new Aristotelianism as represented by Thomas. The leader in this was Duns Scotus. The seat of this movement was Oxford.¹

Duns Scotus was born in Ireland and at an early age he joined the Franciscan order. He graduated from Oxford, which at that time was anti-Thomistic. He then taught theology and philosophy at Oxford for ten years. His lectures were largely attended and his fame spread over Europe. He went to Paris in 1304, where he taught for four years. He was then transferred to Cologne, where he died.

Scotus was the Kant of scholasticism. The time of construction of scholasticism had passed, and the time of criticism and analysis had come. Scotus was the intellectual knight-errant who refused to accept any theory without subjecting it to criticism. He was the acutest mind of the Middle Ages and was called the *doctor subtilis*.

Duns Scotus's Conception of the Twofold Truth. — The Separation of Science and Religion. The distinction between revelation, theology, and philosophy, that appears in this period of Classic Scholasticism, was sharply drawn by Scotus. In Thomas's conception of a graded world of development the distinction between theology and philosophy was not emphasized. Philosophy now in the hands of Scotus becomes science, having the marks of exactness that compel belief, but is, however, restricted to its own realm. By philosophy Scotus means

¹ Roger Bacon (1214–1292) lived at Oxford two generations before Scotus. He was so versatile that he was not able to dogmatize in any one field. He believed that theology was based on the will of God, all other science on the reason. He influenced both Scotus and Ockam to turn from authority to experience. Morality was to him the content of universal religion.

logic. In matters of faith logic has nothing whatever to say, for at that extreme stands revelation possessing the absolute truth that compels faith. Between revelation and philosophy Scotus squeezes theology — the science that his predecessors had used to clarify revelation. With Scotus it becomes a domain that is poor indeed. Its objects are the highest, but it can never reach them. It has not the divine assurance of revelation nor the exactness of logical science. Its highest conclusions are only probable, and it can help revelation only in a negative way. It cannot prove the doctrine of the Trinity, incarnation, creation, immortality, and even its proofs for the existence of God have no cogency. Philosophy and revelation both profit at the expense of scholastic theology. After Scotus scientific heresy frequently shielded itself on the ground that its conclusions apply only to the realm of science, while the opposite may be true in revelation.

The Inscrutable Will of God. Revelation is thus placed beyond the reach of the human reason because it rests on the inscrutable will of God. Revelation is God's free act. God must be free. If Thomas's conception of God's will as determined by his intellect were true, God would not be free. The intellect in man or God must be the servant of the will, if the will be free. In man consciousness produces at first a number of indistinct and imperfect ideas. Those ideas become distinct upon which the will fixes its attention, while the others cease to exist because they are unsupported by the will.

God's will is more fundamental than the good. God makes the good to be good. Both Thomas and Scotus say that the moral law is the command of God. Thomas conceives it to be God's command because it is in ac-

cord with the good ; Scotus, for no other reason than that it is God's command. The good might be different if God so created it. In opposition to Thomas, Scotus maintained that God does not have to create what He does create, and that this is not the best possible world. God creates what He wills ; He can, therefore, grant dispensation, and so can the church. If God's will were determined by His intellect, He would have no independence, He would not even exist, He would be only nature or one of its causes, there could be no evil nor accident. He can supersede the moral law by a new law, just as He superseded the Mosaic law by the Gospel. Individuality, revelation, salvation, and all objects of faith have their existence only in the groundless and inscrutable will of God. For this reason there can be no rational theology.

This founder of the " Franciscan tradition " of practical piety and meritorious action could not have other than the freedom of the will as his central principle. An Augustinian he refused, however, to follow Augustine in centralizing freedom in God. The object of faith is the will of God, the subject of faith is the will of man. Human freedom consists in coöperation with divine grace. Man can help in the work of God. His freedom is partly formal : he can will or not will. It is partly material : he can will A or B. There is no ulterior ground to determine the human will, and this undetermined freedom is the ground for merit, provided the human will coincides with the divine.

The Problem of Individuality. The problem of individuation was a favorite one with Scotus. While Scotus agrees with Thomas as to the threefold existence of the universal, the individual and not the universal is

the ultimate fact. The individual cannot be deduced from the universal, nor can it be constituted by the quantitative determinations of matter. It is already individualized and substantialized. Form, not matter, individualizes. The definite individual form, the "thisness" (*hæcceitas*), is the ultimate fact. The individual can only be verified as actual fact. The individual is irreducible, and no further explanation can be made than to say that it is an individual. Thus the inquiry into the *Principium individuationis* has no meaning.

After Duns Scotus. The church failed to canonize Scotus; for though he claimed to be its most faithful son, he taught the dangerous doctrine of freedom of the individual will. His doctrine also marks the beginning of empirical investigation of nature and the decadence of formal logic. Although a most faithful follower of the church, he brought scholasticism to the point where it no longer served the church. The result was ultrarationalism — not what Scotus intended. But when revelation no longer rests upon rational ground, and when there exists by its side a philosophical science whose basis is rational, it is only a question of time when revelation shall lose its authority for men. When philosophy passed from Scotus to Ockam, Ockam's conception of the individual as the ultimately real and of the unreasonality of revelation gave him the old name of nominalist. This is a misnomer, for the doctrine of Ockam is quite different from the nominalism of Roscellinus. The temper of the time was different from those days when Roscellinus followed upon Anselm, for the superior minds were now turning away from orthodoxy. Disciples of both Thomas and Scotus were becoming nominalists. It was an epoch when scholasticism

was being discredited by the universities, when theology was less a study in the curricula, when religion was being superseded by magic, when there were rival claimants for the Pope's chair, when there was strife between the church and the state. The spirit of the age was toward nominalism in every form. The command, in 1339, to the University of Paris not to use Ockam's works shows how powerful had become his following during his lifetime. Dominicans and Augustinians went over in crowds to nominalism. This beginning of nominalism betrays the growth of European national life, modern languages, art, and the sciences. It shows the beginning of Protestantism in all departments. The church attempted to crush it in the way that it had crushed Roscellinus. But this nominalism had too deep root.

William of Ockam (1280-1349) : Life and Teaching. Ockam was called *Doctor Invincibilis*. He was born in Ockam, England, and studied at Oxford, where he probably had Scotus as a teacher. After teaching in Paris (1320-1325), he left Paris and joined the opponents of the temporal power of the Pope. He was imprisoned at Avignon, but escaped to the court of Louis of Bavaria, where he died. To Louis he made his celebrated promise, "If you will defend me with your sword, I will defend you with my pen." He has been called "the first Protestant."

The nominalism of Ockam was more complex than that of Roscellinus, and yet it was essentially a tendency to simplification by discarding all metaphysics and psychology as useless. "Ockam's razor" was the nickname of his philosophy. He regarded concepts as subjective signs or "terms" of actual facts. Hence his

philosophy was also called terminism. There was also in it a naturalistic tendency which was the result of the scientific studies of the Aristotelian Arabians. With these logical and naturalistic motives were united the Augustinian doctrine of the will. These were the three factors of a nominalism that felt the conviction of the importance of the inner life as well as the need of an extended investigation of nature.

It is, moreover, no accident that Ockam was conservative, for he belonged to the Franciscans, the most conservative of the monastic bodies. This nominalism was a reaction against scholasticism, in order to strengthen the supernatural character of dogma. Ockam felt that scholasticism had waxed too great — that under the guise of serving religion it had virtually subordinated religion. The reactionary Franciscans proclaimed the entire separation of religion and philosophy in order to make room for faith. Faith could be purified only by renouncing scholasticism. The temporal power must be given up by the church, the state and the church must be separated. No new knowledge about faith can be obtained. The dogma must be left impregnable, even though scientifically men become skeptics.

Consistent, therefore, was it for this movement to disjoin entirely the parts of the twofold truth. Scotus had almost crowded out natural theology; Ockam completed the work of Scotus. Scholasticism or natural theology is a rubbish-heap of hypotheses. The church should abandon speculation and emphasize faith. It should return to the simplicity and holiness of the Apostolic church. Ockam was devoted to the true up-building of the church and was a follower of St. Francis. It was his love for the church that made

him take sides against her pretensions to temporal power.

Ockam was the natural precursor of his fellow countryman John Locke, and the English empirical school. Individual things have the reality of original Forms, for they come to us intuitively. Our ideas are only signs of them. This is a relation of the "first intention." As individual ideas are related to individual things, so general ideas are related to individual ideas. This is the relation of the "second intention." The general idea referring thus indirectly to an individual thing is therefore arbitrary and capricious. Real science deals with things intuitively observed; rational science only with the relations between ideas. Nevertheless real science deals only with an inner world, even if its material is intuitively known. Intuitions are only representatives of the real world. How much less real must the world of rational science then be, since it presupposes these inner intuitions of real science. The universal, therefore, has no reality. It is a name, a sign of many things, a term. Only the individual is real.

After Ockam. William of Ockam was the last schoolman. When his doctrine of terminism was united with Augustine's powerful doctrine of the will, — forming an extreme individualism, — the glimmering of the dawn of modern times appears. The movement was made still stronger by the study of the history of development psychologically, and it became a kind of idealism of the inner life. Already, too, there were beginning investigations in natural science, based upon empirical study. Modern subjectivism was at hand; scholasticism had run its course. The representatives of the scholastic philosophy of the fifteenth and sixteenth centuries

forgot the principle of the Classic Schoolmen and became mere commentators of the leaders of the tradition to which they belonged. Their verbal subtleties were too refined to be understood. The efforts of Nicolas Cusanus to bring secular science under a system of scholastic mysticism only promoted the modern movement. Cusanus therefore belongs to the next period, and of him we shall subsequently hear.

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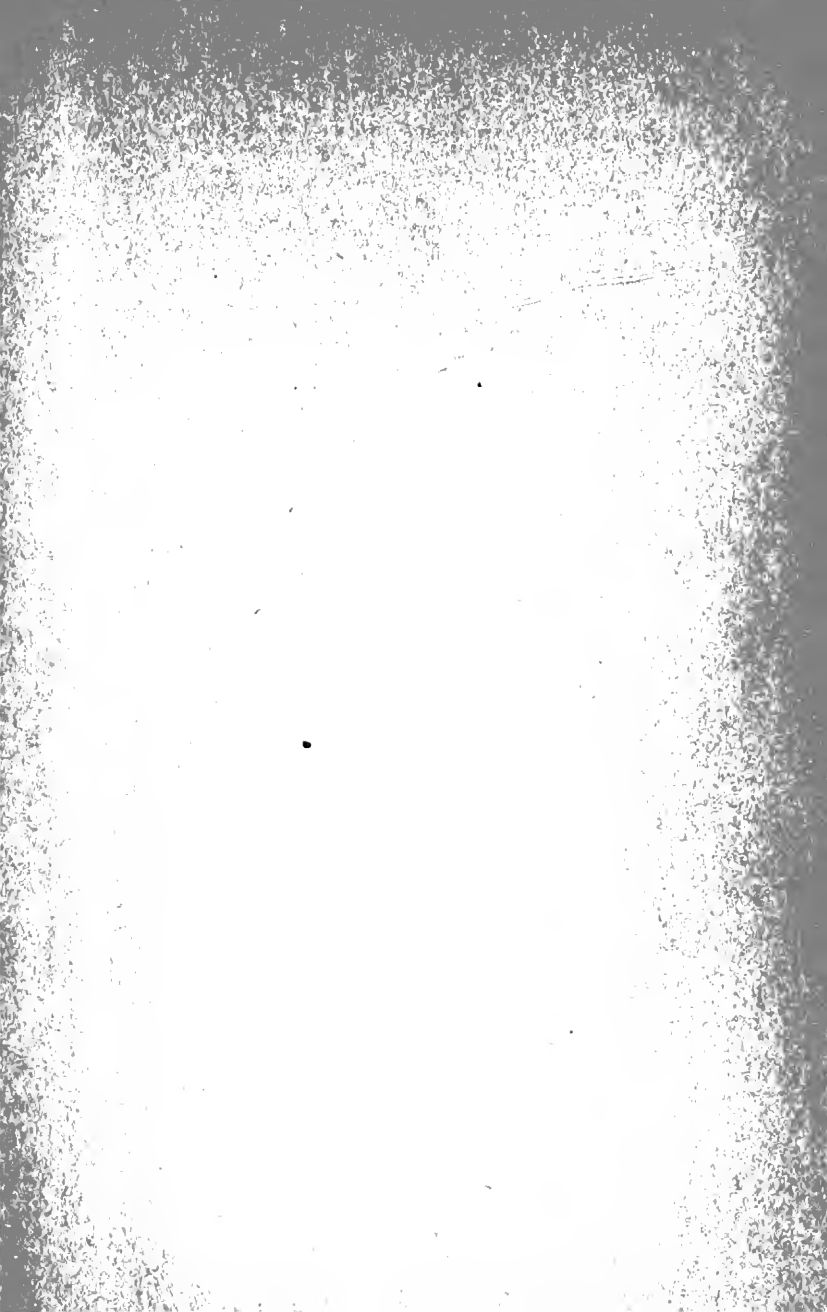
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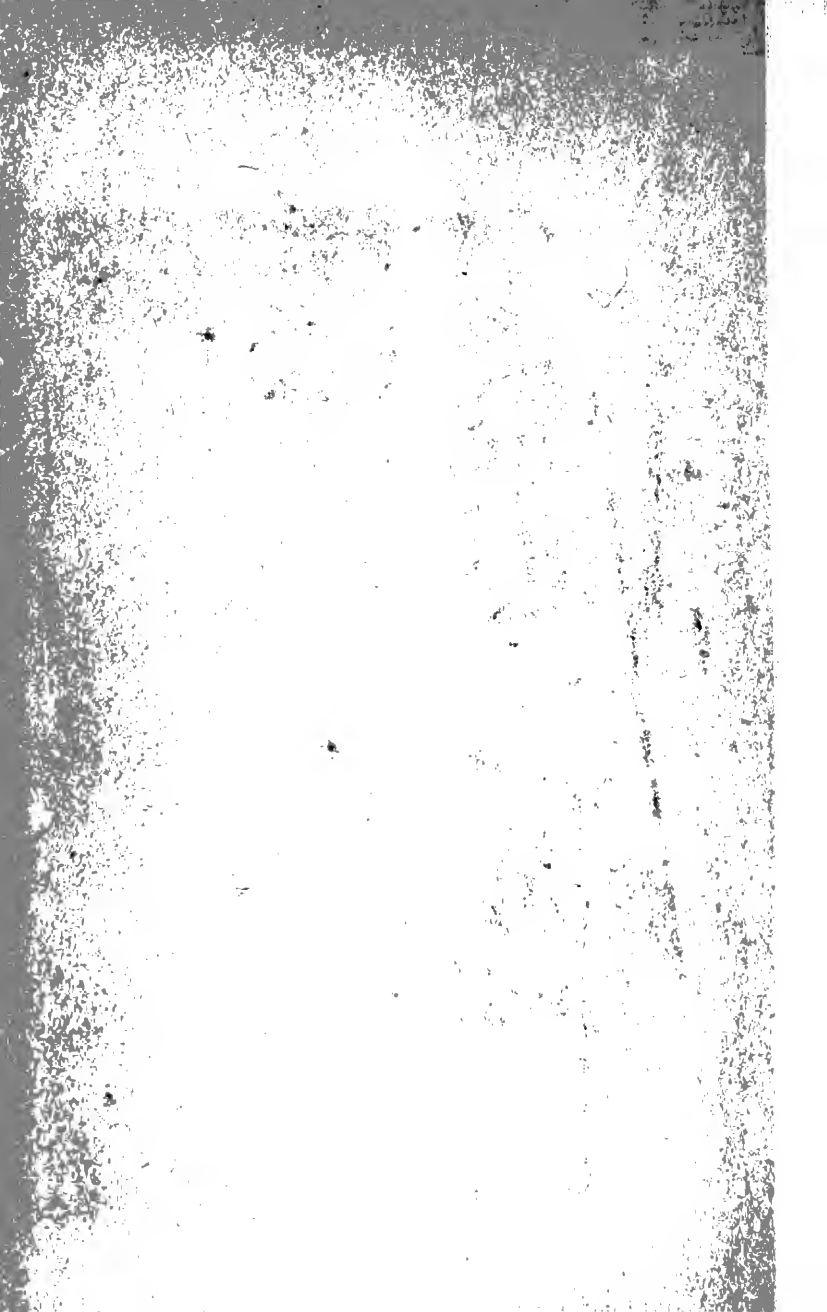
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A BEGINNER'S HISTORY OF PHILOSOPHY

BY

HERBERT ERNEST CUSHMAN, LL.D., PH.D.

*Sometime Professor of Philosophy in Tufts College
Lecturer of Philosophy in Harvard College
Lecturer of Philosophy in Dartmouth College*

VOL. II

MODERN PHILOSOPHY



BOSTON NEW YORK CHICAGO
HOUGHTON MIFFLIN COMPANY

The Riverside Press Cambridge

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PREFACE

THE pedagogical purpose of this history of philosophy is stated in the Preface to the first volume. It may be desirable in this place to restate what that purpose is.

This book is intended as a text-book for sketch-courses in the history of philosophy. It is written for the student rather than for the teacher. It is a history of philosophy upon the background of geography and of literary and political history. Since the book is intended for the student, it makes the teacher all the more necessary; for it puts into the hands of the student an outline of the history of philosophy and into the hands of the teacher the class-room time for inspiring the student with his own interpretations. In making use of geographical maps, contemporary literature, and political history, this book is merely employing for pedagogical reasons the stock of information with which the student is furnished, when he begins the history of philosophy. The summaries, tables, and other generalizations are employed, as in text-books in other subjects, as helps to the memory. Therefore the book has the single purpose of arranging and organizing the material of the history of philosophy for the beginner.

The student will be impressed with the short time-length of the modern period compared with the tremendously long stretches of the periods of antiquity. The modern period is only four hundred and fifty years

in length, if we take the date 1453 as its beginning. Compared to the twenty-two hundred years of ancient and mediæval life, the period of modern life seems very short. Furthermore the student who has followed the philosophy of antiquity must have observed how often philosophy arose out of ethnic situations in which whole civilizations were involved. He will find that modern philosophy in this respect stands in contrast with the philosophy of ancient times. With the decentralizing of modern Europe, philosophy has also become decentralized. This does not mean that philosophical movements have included fewer people in their sweep, but that the movements have had shorter life, the transitions have been quicker, and the epochs have been briefer. Modern civilization is subjective ; and its philosophy is thereby more technical, and more difficult to understand and to interpret than the philosophy of antiquity.

There are many helpful books in English on the history of modern philosophy, and the student should have them at hand. I call attention especially to Rand, *Modern Classical Philosophers*, for its judicious selection from the original sources ; to Royce, *Spirit of Modern Philosophy*, chapters iii to x ; to Eucken, *The Problem of Human Life*, pp. 303 to 518 ; and to the Summaries in Windelband, *History of Philosophy*, Parts IV to VII. Besides these there are valuable histories of modern philosophy by Falckenberg, Höffding (2 vols.), Weber, Ueberweg (vol. ii), Calkins, Dewing, and Rogers.

To friends who have read parts of the manuscript, I desire to acknowledge my indebtedness for many wise criticisms and suggestions ; especially to Professor W. A. Neilson, Professor R. B. Perry, Dr. B. A. G. Fuller,

PREFACE

v

and Dr. J. H. Woods of Harvard University ; to Professor Mary W. Calkins of Wellesley College ; to Professor W. P. Montague of Columbia University ; and to Professor S. P. Capen of Clark College.

TUFTS COLLEGE, December, 1910.



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A BEGINNER'S HISTORY OF PHILOSOPHY

VOLUME II

MODERN PHILOSOPHY (1453 TO THE PRESENT TIME)

CHAPTER I

THE CHARACTERISTICS AND DIVISIONS OF THE MODERN PERIOD

The Difficulty in the Study of Modern Philosophy. Beside the great spans of ancient and mediæval civilizations, the 450 years of the modern period seem brief. The road is indeed relatively short from mediæval times to the century in which we live, and yet it proves difficult to the student who travels it for the first time. Even for the modern mind the study of modern philosophy is inherently more difficult than that of the ancient and mediæval. The preceding periods present new points of view, but these, once attained, lead along comparatively easy ways. The chief difficulty of the preceding periods is overcome when their peculiar view of things is gained; but the student of modern philosophy is confronted with difficulties all along the way. In the first place, modern philosophy is very complex because it is a conflict of various aspirations. It has neither the objectivity of ancient thought nor the logical consistency of mediæval thought. It arises from

subjective motives, whose shadings are difficult to trace. The task is rendered harder by the fact that intimations of the problems in the history of modern philosophy are on the whole present in the beginner's mind; and yet at the same time his mind possesses, besides these, many mediæval notions as well. For the student to pass successfully through the entire length of modern thought from Cusanus to Spencer means, therefore, two things for him: (1) he must gain an insight into the depth and significance of his own half-formed ideas; (2) he must transcend or give up entirely his mediæval notions. If therefore philosophy represents the epoch that produces it, — either as the central principle or as the marginal and ulterior development of that epoch, — the modern can come to an understanding of the history of modern philosophy only by coming to an understanding of himself and his own inner reflections.

This will explain why the short period of modern thought is traditionally divided into comparatively many periods. These subordinate periods ring out the changes through which the modern man feels that he himself has blindly passed in his inner life. Modern philosophy is no more local and temporary than the ancient; it is no less a part of a social movement; but the modern man is more alive to the differentiations of modern thought than he is to those of antiquity.

The Periods of Modern Philosophy. The divisions of the history of modern philosophy are as follows: —

1. The Renaissance (1453–1690) — from the end of the Middle Ages to the publication of Locke's *Essay on the Human Understanding*.
2. The Enlightenment (1690–1781) — to the publication of Kant's *Critique of Pure Reason*.

3. German Philosophy (1781–1831) — to the death of Hegel.
4. The Nineteenth Century Philosophy (1820 — the present time.)

The Renaissance, the first period, covers more than half of the length of modern times. It is sometimes called the springtime of modern history, although it is longer than all the other seasons together. It is to be noted that two epoch-making books form the dividing lines between the first three periods. The transition from the Renaissance to the Enlightenment is signalized by Locke's great *Essay on the Human Understanding*, which expressed for one hundred years the political and philosophical opinions of western Europe. The transition from the Enlightenment to German Philosophy was in its turn signalized by the appearance of Kant's *Critique of Pure Reason*, and this book may be said to have been fundamental to human thinking ever since. There is one point further to be noticed in these divisions, and that is the overlapping of the last two periods. German philosophy ends practically with the death of Hegel in 1831, and the modern Evolution movement began at least ten years before, about 1820. No great philosophical treatise marks the division here, for the Evolution movement had its beginnings in German philosophy and in the discoveries and practical inventions of natural science. Evolution, however, became a reaction upon the last phases of German philosophy, and then formed a distinct movement. The book that formulated the Evolution movement most fully appeared several years after the theory was under way. This was Darwin's *Origin of Species*, published in 1859. Locke's *Essay* and Kant's *Critique* are therefore

the most influential philosophical interpretations of the history of modern times since its early beginnings in the Renaissance.

The Causes of the Decay of the Civilization of the Middle Ages. The social structure of the mediæval time weakened and broke apart, in the first place because of certain inherent defects in its organism; in the second place because of some remarkable discoveries, inventions, and historical changes. We may call these (1) *the internal causes* and (2) *the external causes* of the fall of the civilization of the Middle Ages.

(a) *The Internal Causes* were inherent weaknesses in mediæval intellectual life, and alone would have been sufficient to bring mediæval society to an end.

(1) *The intellectual methods* of the Middle Ages were self-destructive methods. We may take scholasticism as the best expression of the intellectual life of the Middle Ages, and scholasticism even in its ripest period used the *method of deductive logic*. Scholasticism did not employ induction from observation and experiment, but proceeded on the principle that the more universal logically a conception is, the more real it is. (See vol. i, p. 355.) On this principle scholasticism set as its only task to penetrate and clarify dogma. Its theism was a *logical* theism. Even Thomas Aquinas, the great classic schoolman, used formal logic (dialectics) as the method of obtaining the truth. After him in the latter part of the Middle Ages, logic instead of being a method became an end. It was studied for its own sake. This naturally degenerated into word-splitting and quibbling, into the commenting upon the texts of this master and that, into arid verbal discussions. The religious orders frittered away their time on verbal questions of trifling

importance. The lifetime of such intellectual employment is always a limited one.

(2) *The standard of the truth of things* in the Middle Ages became a double standard, and was therefore self-destructive. Ostensibly there was only one standard, — infallible dogma. Really there were two standards, — reason and dogma. The employment of logical methods implied the human reason as a valid standard. Logic is the method of human reasoning. To use logic to clarify dogma, to employ the philosophy of Aristotle to supplement the Bible, to defend faith by argument, amounted in effect to supporting revelation by reason. It was the same as defending the infallible and revealed by the fallible and secular. It was the erecting of a double standard. It called the infallible into question. It was the offering of excuses for what is supposedly beyond suspicion. The scholastic made faith the object of thought, and thereby encouraged the spirit of free inquiry.

(3) *The development of Mysticism* in the Middle Ages was a powerful factor that led to its dissolution. There is, of course, an element of mysticism in the doctrine of the church from St. Augustine onwards, and in the Early Period of the Middle Ages mysticism had no independence. But mysticism is essentially the direct communion with God on the part of the individual. The intermediary offices of the church are contradictory to the spirit of mysticism. It is not surprising, therefore, to find in the last period of scholasticism numerous independent mystics as representatives of the tendency of individualistic religion, which was to result in the Protestantism of the Renaissance.

(4) *The doctrine of Nominalism* was the fourth

important element to be mentioned that led to the dissolution of the civilization of the Middle Ages. This was easily suppressed by the church authorities in the early mediæval centuries, when it was a purely logical doctrine and had no empirical scientific basis. In the later years, however, nominalism gained great strength with the acquisition of knowledge of the nature world. Nominalism turned man's attention away from the affairs of the spirit. It incited him to modify the realism of dogma. It pointed out the importance of practical experience. It emphasized individual opinion, neglected tradition, and placed its hope in the possibilities of science rather than in the spiritual actualities of religion.

(b) *The External Causes* consisted of certain important events that brought the Middle Ages to a close and introduced the Renaissance. These events caused great social changes by demolishing the geographical and astronomical conceptions of mediæval time which had become a part of church tradition.

First to be mentioned are the inventions which belong to the Middle Ages, but which came into common use not before the beginning of the Renaissance. These played an important part in the total change of the society which followed. They were the magnetic needle, gunpowder, which was influential in destroying the feudal system, and printing, which would have failed in its effect had not at the same time the manufacture of paper been improved. Moreover at the end of the fifteenth and the beginning of the sixteenth century occurred the following events:—

1453. Constantinople fell and its Greek scholars migrated to Italy.

1492. Columbus discovered America, an achieve-

ment which was made possible by the use of the magnetic needle.

1498. Vasco da Gama discovered the all-sea route to India and thereby changed the course of the world's commerce.

1518. The Protestant Reformation was begun by Luther.

1530. Copernicus wrote his *De revolutionibus orbium*, in which he maintained that the earth moved around the sun.

CHAPTER II

THE RENAISSANCE* (1453-1690)

The General Character of the Renaissance. The causes that led to the decline of the society of the Middle Ages were of course the same that ushered in the period of the Renaissance, — the first, the longest, and the most hopeful period of modern times. The general characterization of this period may be expressed in a single phrase, — *a New Man in a New Universe*. This, however, needs explanation.

(a) The *New Man* of the Renaissance was distinctly a man with a country. The fusion of the German and Roman peoples in the Dark Ages before Charlemagne (800) was now completed. The fusion did not result in a homogenous whole, but in groups which formed the nations of Europe. The time when this grouping was practically finished is a difficult problem, into which we will not inquire. In a real sense it never was nor will be ended. We know that the nations began to form about the year 1000, and when we examine the history of the Renaissance we find Italians, Germans, French, Dutch, and English with distinctive national characteristics. We find the Renaissance first centralized among the Italians and Germans, and then later among the English, the people of the Low Countries, and the French. The Italian is a new Roman and

* Read Eucken, *Problem of Human Life*, pp. 303-321; Windelband, *History of Philosophy*, pp. 348-351; Dewing, *Introduction to Modern Philosophy*, pp. 52-54.

the German a new Teuton. The undefined nationalities of the Middle Ages now become clear-cut. Philosophy also becomes now more or less of a national concern.

(b) A *New Universe* is now opened to the "New Man" of the Renaissance. Not only in mental equipment, but in scope for his activity, does the European of the Renaissance differ from the mediæval man. The world is actually a new world — new in its geographical outlines and its astronomical relations; new in its intellectual stores from the past. The physical world that supported his body and the intellectual world that refreshed his mind were newly discovered by the man of the Renaissance. We must examine these two new worlds more in detail.

1. The physical universe had undergone a wonderful transformation for man. Our nineteenth century has often been looked upon as a period of extraordinary discoveries; but no discoveries have ever so revolutionized the human mind as those enumerated above as "the external causes of the fall of the society of the Middle Ages." Think how new that old world must have seemed to the common people who had supposed it to be flat, as well as to the scientists who had hypothetically supposed it to be solid — how new it must have seemed when they found that it had been actually circumnavigated! How the horizon of men's minds must have widened when new continents were discovered by sailors and new celestial worlds were found by the telescope of the astronomers! Discovery led to experiment, and the whole new physical world was transformed by the new physical science of Galileo into a mechanical order. It was a wonderful new material world that was discovered and scientifically reorganized at the begin-

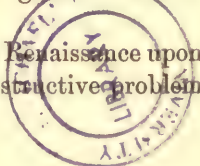
ning of the Renaissance. Whereas the common man in mediæval time had found little joy in living, the common man now looked upon the world as a magnificent opportunity. Whereas the mediæval man had turned from the disorders of this wicked world to contemplation of the blessedness of heaven, the man of the Renaissance came forth from the cloister and engaged in trade and adventure. The earth and the things therein had suddenly become objects of emotional interest.

2. Not only was a new geographical and physical world discovered at this time, but also the intellectual world of antiquity was restored. For more than a thousand years in western Europe the literature of the Greeks and Romans had been a thing of shreds and patches, and even then read only in Latin translations. Now the European had come into possession of a large part of it and was reading it in the original. He was aroused to the wonderful intellectual life of the Age of Pericles. The interest in ancient literature, which had been started by Dante, Petrarch, and Boccaccio in the thirteenth and fourteenth centuries, became an absorbing and controlling force at this time. The real interest began with the stimulus received by the coming of the Greek scholars to Italy from the East: first the ecclesiastical embassy in 1438, and afterward in 1453 the large number of refugees from Constantinople at the time of its capture by the Turks. Upon these refugees the patronage of the great Italian nobles — chiefly perhaps in Florence — was lavishly bestowed. The Platonic Academy was founded. Learned expounders of the new learning arose, — Pletho, the two Picos, Ficinus, Reuchlin. Of all the philosophies of antiquity Platonism was favored, and it was interpreted in a mystical manner. Aristotle and Chris-

tianity were looked upon as mere interpretations of Plato. Nevertheless the Renaissance scholars were interested in all the new literary material from the East. They studied the Jewish Cabala and its mystic numbers. They revived Skepticism, Eclecticism, Stoicism, and Epicureanism. Aristotle was represented by two antagonistic schools; and Taurellus opposed both and appealed to the scholarly world to return to Christianity.

The Significance of the Renaissance in History. We have above characterized the Renaissance as a time in which a "new man" found himself living in a "new universe." But the old world of mediæval science, culture, and conventional manners had by no means been entirely outgrown and discarded. Periods of history do not "leave their low-vaulted past" as easily as a man may throw away his coat. Mediæval science and theology still remained, not only as a background but also as an aggressive social factor everywhere. Mediæval scholasticism was something with which the Renaissance had always to reckon. Scholasticism modified, frequently restricted, and even directed the thought of the Renaissance. Consequently when we form our final estimate of the place of the Renaissance in the modern movement, we must not overlook the conservative force of the mediæval institutions existing during the period. The "new man" lived in a "new universe"; and *his problem was how to explain the relation of that "new universe" to himself so that his explanation would not antagonize the time-honored traditions of the church.* This was the constructive problem that gave the Renaissance its place in history.

The first impression, however, of the Renaissance upon the reader is that it stands for no constructive problem



whatever. The changes that usher in the Renaissance seem to speak of an epoch that is entirely negative, destructive, and revolutionary. The period seems from one side to be a declaration against time-honored traditions. The "new man" had risen superior to dogma and to Aristotle. Intellectual fermentation had set in, and never had so many attempts at innovation been so strenuously sought. The love for novelty filled the human mind, and the imagination ran riot. The movement toward modern individualism appeared in the decentralization that at this time was everywhere taking place. Latin, for example, ceased to be the one language for educated men, and the modern languages came into use. Rome ceased to be the only religious centre, and Wittenberg, London, and Geneva became centres. There was no longer one church, but many sects. Scientific centres became numerous. Many of the universities had arisen independently, and now Oxford, Vienna, Heidelberg, Prague, and numerous universities in Italy and Germany afforded opportunities for study equal to those of Paris. To the man who looks upon the Classic Period of Scholasticism in the Middle Ages as the golden age of united faith, — to that man the Renaissance will appear only as the beginning of the disintegration and revolution that he sees in modern times.

But a deeper insight into the Renaissance shows that its revolutionary, negative, and spectacular aspect is not its whole significance. No doubt a strong, universal, and well-centralized government and a unity of faith are social ideals. The reverence in which the name of Rome was held long after the empire had been destroyed, and the reluctance with which the first Protestants separated themselves from the Catholic church, show that the loss



MAP SHOWING THE DECENTRALIZATION OF EUROPE IN THE SIXTEENTH CENTURY

(Note that Rome, Wittenberg, London, and Geneva are the religious centres; that Paris, Oxford, Heidelberg, and Prague are the educational centres; and that Europe is divided into many nations)

of such a unity is a real loss. But the church of the Middle Ages was not the carrier of all the treasure of the past, nor could the church with its own inherent limitations stand as representative of modern times. The new problem which the Renaissance faced might be destructive of much of the traditional past, but it contained many new elements. The "new man" found himself in a "new universe." He was obliged to undertake the solution of a far deeper problem than antiquity had ever attempted. He must orient himself in a larger world than the past had ever imagined. He must do this in the very presence of mediæval institutions, which had not lost their spiritual nor their temporal power. The constructive problem before the man of the Renaissance was therefore an exceedingly complex one. How should he explain his relation to the "new universe" in a way that would not antagonize tradition? It was a new problem, a real problem in which the traditional factor was always persistently present.

There were two *motifs* which give to the problem of the Renaissance its constructive character. These were *naturalism* and *subjectivism*. *In the first place, the Renaissance is the period when the naturalism of the Greeks was recovered.* By naturalism is meant the love for earthly life. Of this the mediæval church and the mediæval time had little or nothing. The church had been born out of the revulsion from the earthly, and it rose on the aspiration for the supernatural. The Renaissance was, on the contrary, born out of a passionate joy in nature, which joy was intensified by the unexpected possession of the literature of the past and by the discovery of new lands beyond the seas. Man felt now the happiness and dignity of earthly living and the

worth of the body as well as the soul. *In the next place, the Renaissance is marked by the rise of subjectivism.* At the beginning of our book we have already given the meaning of subjectivism (see vol. i, p. 2), and we have characterized modern civilization as subjective in distinction from the ancient as objective and the Middle Ages as traditional. We have also found, as we have gone on, the beginnings of subjectivism in the Sophists, Stoics, and Christians. But in the Renaissance for the first time does the individual as a rational self gain the central position. This is subjectivism: the individual is not only the interpreter of the universe, but also its mental creator. Of the subjective *motif* in modern times the Renaissance marks the inauguration, and German Idealism the culmination. While the world of the ancients was cosmo-centric and the mediæval world was theo-centric, the world of the modern man is ego-centric. The love of life, and the love of life because the individual feels his own capacity for life — this is the situation presented to the man of the Renaissance. Thus in the restoration of naturalism and in the construction of subjectivism did the Renaissance stand for positive upbuilding, in spite of the fact that in all this the period was constrained by the powerful tradition of the church.

The Two Periods of the Renaissance: The Humanistic (1453–1600); The Natural Science (1600–1690). The Renaissance is divided into two periods at the year 1600. The reason for taking this date as a division line will soon appear. The period before 1600 we call the Humanistic, or the period of the Humanities; the period after this date the Natural Science Period.

(a) *The Similarities of the Two Periods.* These two periods are alike in having the same motives. Both feel the same urgent need (1) for new knowledge, (2) for a new standard by which to measure their new knowledge, (3) for a new method of gaining knowledge. From the beginning to the end of the Renaissance the "new man" was feeling his way about, was trying to orient and readjust himself in his "new universe." He was seeking new acquisitions to his rich stores of knowledge, to systematize his knowledge by some correct method, and to set up some standard by which his knowledge might be tested.

(b) *The Differences of the Two Periods.* There are, however, some marked differences in the carrying out of these motives by each period, and to these we must give our attention.

(1) *The Countries which participate in the Renaissance differ in the Two Periods.* In the Humanistic Period Italy and Germany were chiefly concerned. There are two reasons for this. In the first place, these countries had been engaged in commerce with the Orient, had become prosperous and more or less acquainted with the culture of the Orient. In the second place, Italy had been the refuge of the Greek scholars; when the colony of Greek refugees in Florence had died out in 1520, northerners like Erasmus, Agricola, Reuchlin, the Stephani, and Budæus had luckily already made themselves masters of the Greek language and literature, and had carried their learning into Germany.

In the Natural Science Period the Renaissance had practically become dead both in Germany and in Italy. The reason for this is not far to seek. In Italy, in 1563, the Council of Trent had fixed the dogma of the church

and had made it impossible for the church to assimilate anything more from antiquity. The so-called Counter-Reformation set in, and Italy became dumb under the persecutions of the Inquisition. Furthermore, the discovery of the sea-route to the East had turned commerce away from Italy. When we look to Germany, we find a similar situation. The Thirty Years' War (1618-1648) had devastated the land and had made intellectual life wholly impossible.

On the other hand, England, France, and the Low Countries represent the Natural Science Period in the Renaissance. By the War of Liberation (1568-1648) Holland became the European country where the greatest freedom of thought was granted, and it proved itself an asylum for thinkers and scholars. France, through the influence of the University of Paris, was the centre of mathematical research. In England the brilliant Elizabethan era had already begun.

(2) *The Intellectual Standards differ in the Two Periods.* The Humanistic Period has been well characterized as the time of "the struggle of traditions." Naturally enough, with the revival of Greek learning the thinkers of the first period of the Renaissance would try to solve the new problems by the standards which they found in antiquity. What did Aristotle, Plato, the Epicureans say in matters of science? What standards did they yield for solving the new problems of the "new universe"? The traditions of antiquity were therefore revived; and the contention was, Which should be taken as a standard? Among all the ancient systems neo-Platonism became the most prominent. It dominated the Humanistic Period because its æsthetic character and its mystical explanations appealed to the

susceptible mind of that time. Nevertheless, the sway of neo-Platonism was not absolute. The "struggle of traditions" continued throughout the period, as appears in the schisms of the church and in the literary and philosophical contentions.

The Natural Science Period, in its hope of finding a standard to explain the problems of the "new universe," discovered a new standard within the "new universe" itself. No tradition of antiquity had proved itself adequate to the situation. Nothing could be found in Plato and Aristotle to give a theoretic standard for the new discoveries and inventions. Nature disclosed its own standard within itself. The Natural Science Period said *nature facts must be explained by nature facts*. But the question will naturally be asked, Why did the thinkers of this period, when the theories of antiquity were found to be inadequate, turn to nature rather than elsewhere for an explanation of nature? The answer to this is found in the great successes of the physical astronomers, who had started their investigations at the beginning of the Humanistic Period, and had reached the zenith of their glory at the beginning of the Natural Science Period. The discoveries of Galileo were especially important.

(3) *The Scientific Methods in the Two Periods were Different.* The method usually employed in the Humanistic Period was magic. This first period tried to explain nature facts of the "new universe" by referring them to agencies in the spiritual world. In their neo-Platonic nature-worship the scholars of this period imagined that the control of nature was to be obtained by a fanciful linking of the parts of nature to the spirits supposed to be in nature. The Bible is the product of

the spiritual world, so why is not the "new nature-world" inspired from the same source? God is the first cause of all things; He is in all things and each finite thing mirrors Him. All things have souls. To gain control over nature, some all-controlling formula must be found which will reveal the secret of the control of spirits over nature; and to master the spirits that control nature is to control nature herself. Hence arose, as the methods of this first period, magic, trance-mediumship, necromancy, alchemy, conjurations, and astrology. Antiquity could offer (and especially is this true of Platonism) only spiritual causes for nature facts,—hence the search in this time for the philosopher's stone. There was never a blinder groping after a method.

The scientific method used in the Natural Science Period was the mathematical. The world of experience was found to coincide with the number system, and therefore mathematics was used as the symbol to determine the form of nature events. Induction and deduction were used in different combinations. The period has been characterized as the time of "the strife of methods." Induction and deduction became in fact the new methods of finding the truth about the "new world." Whatever is clear and distinct, like the axioms, must be taken as true. All other knowledge must be deduced from these axiomatic certainties. In contrast with the magical methods of the Humanistic Period, which point beyond nature for an explanation of nature, here in the Natural Science Period mathematics need not lead the explanation farther than nature herself.

(4) *The Attitude of the Church toward Science differs in the Two Periods.* In the Humanistic Period

the attitude of the church toward the new learning was not yet defined. This was because the bearing of the new learning upon dogma was not yet understood. On the one hand, on matters upon which the church had clearly declared itself, it was easily seen what could and what could not be believed. But, on the other hand, the significance of much of the wealth of the newly acquired learning could not at first be fully determined. The enthusiasm for science was so widespread, and the new discoveries were so many, that the church was unable to know what was consistent with dogma and what was not. At the outset the church was inclined to treat the new science with contemptuous toleration. Nevertheless, in spite of the new intellectual intoxication there was no real freedom of thought. The position of science was merely precarious, uncertain, and undefined.

In the Natural Science Period this uncertainty was dispelled because dogma came into violent conflict with science. It was soon found that questions in physics involved metaphysics, and that the new science touched the church doctrines at every point. In 1563 the church authorities at the Council of Trent settled dogma for all time. Great conflicts arose between the church and the secularizing spirit. The scientist became wary. He tried to avoid any intrusion upon the field of theology, and he insisted that his own field existed quite independent of theological dogma. But practically it was impossible for science not to take heretical positions, and this was especially true of the Rationalistic School, which tried to construct a new scholasticism. Safe independence of thought was not gained until the next period (the Enlightenment), and this was brought to pass by political changes.

**A Brief Contrast of the Two Periods—A Summary
of the Discussion above.**

The Humanistic Period.

- (1) The Time — 1453–1600.
- (2) The Countries Concerned — Italy and Germany.
- (3) The Intellectual Standards — Neo-Platonism and other theories of antiquity.
- (4) The Method — magic.
- (5) The Relation of Science to the Church — precarious and uncertain.

The Natural Science Period.

- (1) The Time — 1600–1690.
- (2) The Countries Concerned — England, France, and the Low Countries.
- (3) The Intellectual Standard — the mechanism of nature facts.
- (4) The Method — induction and mathematical deduction in various combinations.
- (5) The Relation of Science to the Church — so definitely stated as to be placed in conflict with dogma.

CHAPTER III

THE HUMANISTIC PERIOD OF THE RENAISSANCE (1453-1600)

The Long List of Representatives of the Humanistic Period. There was a revival of *scholasticism*, — Paulus Barbus Socinas (d. 1494), Cajetan (d. 1534), Ferrariensis (d. 1528), Melchior Cano (d. 1560), Dominicus de Soto (d. 1560), Dominicus Banez (d. 1604), John of St. Thomas (d. 1644), Vasquez (d. 1604), Toletus (d. 1596), Fonseca (d. 1599), Suarez (d. 1617), John the Englishman (d. 1483), Johannes Magistri (d. 1482), Antonius Trombetta (d. 1518), Maurice the Irishman (d. 1513). Among the *Humanists* were Pletho, Bessarion (d. 1472), Lorenzo Valla (d. 1457), Marsilio Ficino (d. 1499), Giovanni Pico della Mirandola (d. 1494), Francesco Pico della Mirandola (d. 1533), Theodore of Gaza (d. 1478), Agricola (d. 1485), George of Trebizond (d. 1484), Justus Lipsius (d. 1606), Schoppe (b. 1562), Paracelsus (d. 1541), Reuchlin (d. 1522), Fludd (d. 1637), Montaigne (d. 1592), Charron (d. 1603), Sanchez (d. 1632), Pomponatius (d. 1530), Achillini (d. 1518), Nifo (d. 1546), Petrus Ramus (d. 1572), Scaliger (d. 1558). The *Italian nature philosophers* were Cardano (d. 1576), Telesio (d. 1588), Patrizzi (d. 1597), Bruno (d. 1600), Campanella (d. 1639). The notable *scientists* were Cusanus (d. 1464), Copernicus (d. 1543), Tycho Brahe (d. 1601), Kepler (d. 1631).

The Protestant Mystics were Luther (d. 1546), Zwingli (d. 1531), Franck (d. 1545), Weigel (d. 1588), Boehme (d. 1624). The *political philosophers* were Macchiavelli (d. 1527), Thomas More (d. 1535), Jean Bodin (d. 1597), Gentilis (d. 1611), Althusius (d. 1638), Hugo Grotius (d. 1645).

As examples of the first epoch of the Renaissance * we have selected Cusanus (1401–1464), Paracelsus (1493–1541), and Bruno (1548–1600). These three men will represent fairly well the wide interests of this epoch, and more especially its neo-Platonic spirit and its methods. The reader will see from their dates that the lives of these three philosophers nearly cover the Humanistic Period. Cusanus lived during the last half century of the Middle Ages and the first decade of the Humanistic Period; Paracelsus's life covers the middle of the Humanistic Period; Bruno lived during the last part of the period, and his death (1600) coincides with the last year of the period. All three were neo-Platonists. They had been so impressed with the nature-world that had opened before them that they were mystic nature-worshipers — pantheists, to whom neo-Platonism became the truest philosophical standard. All three were scientists in different degrees. Yet Cusanus, the cardinal of the church, and Bruno, the speculative philosopher, contributed more to science than Paracelsus, who aspired to medical science. This seeming inconsistency in their lives is not difficult to explain. Paracelsus merely reflects the science of the time; while Cusanus and Bruno anticipate the Natural Science Period — the one by his empirical discoveries, the

* Read Eucken, *Problem of Human Life*, pp. 321–331; Windelband, *Hist. of Phil.*, pp. 352–354.

other by his mystic speculations which were almost prophecies.

Nicolas of Cusa (1401–1464). Modern German scholars place Nicolas of Cusa (Nicolas Cusanus) with Bacon and Descartes, as the leaders of the modern philosophical movement. Nicolas lived two hundred years before Descartes and one hundred years before Bacon. The German estimate of him shows at least that he was modern in his thought, although he belongs in time to the Middle Ages for the most part. He lived when the Middle Ages were passing over into the Renaissance. His principal work, the *Idiota*, was published in 1450, when the Renaissance was on the threshold. He was certainly a forerunner of modern times. He was a German, a cardinal, and is now revered by liberal Catholics as one of their deepest thinkers.

Cusanus was a scientist of no small merit. He died before the great discoveries were made; but he anticipated Copernicus in his belief that the earth rotated on its axis; he anticipated Bruno in conceiving space to be boundless and time unending; he proposed a reform in the calendar; he was the first to have a map of Germany engraved. He condemned the prevalent superstitions of the church and the use of magic in explaining nature events. Thus he anticipated the science of the time of Bacon, Hobbes, and Descartes, and transcended his own period.

In other respects Cusanus belongs in this period with Bruno and Paracelsus. He did not seek to discover a new method; but he turned back to the revived traditional Greek systems for an explanation of the "new world." He found in the mystic numbers of Plato and the Pythagoreans the principle of all scientific investiga-

tion. The world of nature phenomena must be accounted for by the spiritual world. Cusanus uses almost the identical language of Bruno, when he says that the world is the mirror of God and that man is an epitome of the universe. In the neo-Platonic spirit of the Humanists, he regarded the world as a soul-possessing and articulate Oneness. Although a scientist, he conceived science to be only a conjecture, which in its unreality reveals the inner interconnections of the real world — the world of the spirit.

Paracelsus (1493–1541). Paracelsus did not transcend his time as did Cusanus. He merely expressed it. He was the exponent of its science as Bruno was the representative of its poetic speculation. Paracelsus was a much-traveled Swiss, who tried to reform the practice of medicine by a kind of magical chemistry. The poet Browning makes his adventures the basis of a poem. As a physician Paracelsus could employ the magic arts without much danger of the charge of heresy, for the practice of the magic art was theoretically justified by the neo-Platonism of the time. The Faust of Goethe is at first a Paracelsus. The universal spirit behind nature presents itself in an infinite number of spiritual individuals. Nature facts are to be understood and mastered by understanding the activities of these spiritual forces. In this way medicine became a brewing of tinctures, magical drinks, and secret remedies. It was an alchemy which grew to the proportions of a science. The alchemists of the time expected to discover a panacea against disease, which would give them the highest power. This is the meaning of the “philosopher’s stone,” which was to heal all diseases, transmute everything into gold, and bring all spirits into the power

of its possessor. Paracelsus thus turned back to Greek hylozoism for the truth about physiology and the cure of disease; and he met with some degree of personal success, for his physics had many adherents both in theory and in practice.*

In the neo-Platonic manner Paracelsus conceived the world as fundamentally a developing vital principle (Vulcanus). Man is this cosmic force individualized (Archæus). The laws that operate in the world are the same as in man, except that in man they are hidden. The study of nature's laws, as they lie open, will reveal how those same laws operate in a human being. Now the vital principle in nature manifests itself in three realms: the terrestrial, the astral or celestial, and the spiritual or divine. The Archæus or vital principle in man must have the same realms of activity. There is man's body, which gets its strength from the terrestrial realm of nature; man's mind, which is nourished by the stars; man's soul, that feeds on faith in Christ. Perfect health, therefore, consists in the sympathetic interaction of these three realms in man. A complete medicine consists of physics, astronomy, and theology.

But Paracelsus was a chemist, and the terrestrial nature of man was his peculiar interest. The theologian may prescribe for the human soul, and it is the duty of the astronomer to care for the human intellect; but the practical physician must understand the human body. Here is the Archæus imprisoned in the gross terrestrial body! It is in continual warfare with that body. What is the nature of that body which is so hostile to the human vital principle? Here Paracelsus introduces his

* Read Falckenberg, *Hist. of Modern Phil.*, pp. 27-28; Browning, *Paracelsus*; Goethe, *Faust*, lines 1-165.

strange chemical analysis which characterizes him as a Renaissance physician. Nature has three essences of which all bodies are composed: (1) mercury, that makes bodies liquid; (2) sulphur, that makes them combustible; (3) salt, that makes them rigid. These essences are compounded in such a way that from them the four elements — earth, air, water, and fire — are derived. Each one of these elements is controlled by elemental spirits. The earth is controlled by gnomes, the water by undines, the air by sylphs, and the fire by salamanders. Thus the chemical analysis of Paracelsus discovers four sets of spirits with which the physician is obliged to deal. Gnomes, sylphs, undines, and salamanders are in warfare with the human vital principle for control. When the Archæus is in any way checked by these, there is disease; when the Archæus has them under control, the man has health. The medicines that the physician administers are determined by their effectiveness in helping the Archæus in its battle against the hostile spirits. This makes medicine a field for the magician in the control of spirits.

Giordano Bruno (1548–1600). The neo-Platonic spirit of the Humanistic Period reached its most complete development in the æsthetic philosophy of Giordano Bruno. He sang the world-joy of the æsthetic Renaissance. Italy ordained him priest, exiled him as heretic, and then burned him at the stake as recalcitrant. Italy has produced very few great speculators since his day. The Council of Trent met when he was fifteen years old; already the counter-Reformation had begun in Italy, and Italy was soon to become an intellectually arid waste. The influence of Bruno appears in Spinoza and perhaps in Leibnitz. His one contribution to modern science was

in his inspired conception that because God is infinite, the world is infinite in space and time. The philosophers who influenced his thought were Pythagoras, Plato, Plotinus, and Lucretius.

The fundamental thought of the Humanistic Period was expressed by Bruno in his imaginative conception of the divine beauty of the living All. Poet as well as philosopher, he was consumed by a love for nature as a beautiful religious object. He revolted from all asceticism and scholasticism. The "new world" in which he found himself was to him the emblem of God. The thought of that chief of neo-Platonists, Plotinus, of the beauty of the universe had never been so sympathetically regarded as by the Renaissance; in the hands of Bruno this beauty became the manifestation of the divine Idea. Philosophy, æsthetics, and religion were identical to him. To express his thought he employed the usual neo-Platonic symbol of the all-forming and all-animating light. Bruno was no patient student of natural phenomena as such, but a lover of the great illumination of nature facts by the great soul behind them. He was not interested in any single group of phenomena, as was Paracelsus; but he loved them all as a religion. Not only externally but internally is the universe an eternal harmony. When one gazes upon it with the enthusiasm of a poet, its apparent defects will vanish in the harmony of the whole. Man needs no special theology, for the world is perfect because it is the life of God. Bruno is a universalistic optimist and a mystic poet. Before this cosmic harmony man should never utter complaint, but should bow in reverence. True science is religion and morality.

Since Bruno conceived no theodicy (proof of the

goodness and justice of God) to be necessary, he did not define in exact terms his conception of God. Nevertheless, to escape the charge of atheism, he distinguished between the universe and the world. For him God = the universe = nature = matter = the principle immanent in the world. The "world," on the other hand, = the sum-total of nature phenomena. The "world" is the body of God, and God is the soul of the "world." God is *natura naturans*; the world is *natura naturata*.¹ Just as the sum of the parts of man's body does not equal the man himself, so to identify God with the totality of objects of nature is atheism in the true sense. It is to make God a finite being, although very big. In opposition to this, Bruno conceives God as the one substance manifesting himself through all things. This is to magnify God and to make him really omnipresent.

Nevertheless, Bruno is involved in all the inconsistencies of the Mystic. In a neo-Platonic fashion he frequently speaks of God as if he were a plural number of atoms. God is not only the world unity, but in every particle of the world is He writ small. The elements of the world are monads, and each is the mirror of the All. The Absolute is the primal unity; and yet in the paradoxical fashion in which the neo-Platonist is so successful, Bruno says that all creation is unfolded out of God and is included in him. The speculative poet is so in love with the world that he does not stop to make consistent the distinctions which he has

¹ These two phrases will be found again in the philosophy of Spinoza. Nature is conceived as having two aspects: one is *natura naturans*, or God as the animating principle of nature; the other is *natura naturata*, or the world as materialized forms or effects.

drawn. The *natura naturans* and the *natura naturata*, the unity and plurality of the world, are the two aspects of the reality in his own life — and that reality is God.



**MAP SHOWING THE BIRTHPLACES OF THE CHIEF
PHILOSOPHERS OF THE RENAISSANCE**

(The names of the philosophers are given in brackets beneath the towns in which they were born)

CHAPTER IV

THE NATURAL SCIENCE PERIOD OF THE RENAISSANCE (1600-1690)*

The Philosophers of the Natural Science Period.

1. Galileo, 1564-1641, and the group of scientists.
2. Bacon, 1561-1626.
3. Hobbes, 1588-1679.
4. The Rationalists.
Descartes, 1596-1650.
Spinoza, 1632-1677.
Leibnitz, 1646-1716.

Countries other than Italy and Germany come upon the philosophic stage during the eighty-nine years of the period of teeming natural science. England is represented by Bacon and Hobbes, France by Descartes, Holland by the Jew, Spinoza, and, at the end of the period, Germany by Leibnitz. Still Italy yields the most influential thinker of them all, — Galileo, who is the most prominent of a long series of astronomers coming from many countries. The most completely representative is Descartes, who was the founder of the Rationalistic school; for he was not only interested in mathematics itself, but in the application of mathematics to metaphysical questions. Neither as influential as Galileo, nor as comprehensive as Descartes, the Englishmen, Bacon and Hobbes, were nevertheless important as the forerunners of the English empirical school. Spinoza is more of a "world's philosopher" than any of the others, and he joins in his doctrine the scholasti-

* Read Windelband, *Hist. of Phil.*, pp. 378-379.

cism of the Middle Ages and the mathematics of the Renaissance; while Leibnitz occupies the position between the Enlightenment and the Renaissance.

The Mathematical Astronomers. After enthusiastically canvassing the traditional theories of antiquity, the Humanists had been unable to find one which would explain and organize the newly accumulated materials of their "new world." But working in more or less narrow circles, natural science had already made a beginning in the midst of the Humanists. Beginning with Copernicus, an interest in physics and astronomy had been aroused, but in these early days it was more speculative than empirical. The speculations of the astronomers had but little influence upon their own time. However, when the ancient theories proved inadequate to explain the facts of the "new world," and especially when the empirical researches of Galileo confirmed the speculations of his predecessors, the Renaissance turned away from antiquity to nature herself for an explanation. This was about the year 1600, the year of the beginning of the Natural Science period.

The most prominent of these astronomers were —

Copernicus, 1473–1543, a Pole.

Bruno, 1548–1600, an Italian.

Tycho Brahe, 1546–1601, a Dane.

Kepler, 1571–1630, a German.

Galileo, 1564–1641, an Italian.

Huyghens, 1629–1695, a Hollander.

Newton, 1642–1722, an Englishman.

While the greatest of these scientists is Newton, who belongs to the next period, the most influential is Galileo. Modern *methods in science* began with Galileo. Of the four predecessors of Galileo three — Coperni-

cus, Tycho Brahe, and Bruno — are in spirit Humanists; for their final explanation of nature is the world of spirits. Kepler belongs to both the Humanistic and Natural Science periods; for at first he constructed his natural science by an amalgamation of the doctrine of spirits and the Copernican theory; but in the latter part of his life he adopted completely the mechanical view of nature. The above scientists may be divided for convenience into two groups: (1) the speculative scientists before Galileo; (2) Galileo and the following empirical investigators.

For fourteen centuries the ancient Ptolemaic astronomy had been regarded by the learned as beyond question. Although complex and unwieldy, it explained all phenomena satisfactorily enough as they appeared to the senses; and it brought phenomena into a system. (The Ptolemaic system has been fully described in vol. i, pp. 322 ff.) To recapitulate it: the world-all was conceived as a hollow sphere with the earth as the centre and the fixed stars in the periphery, while the planets were supposed to move in epicycles. The universe was divided into the heavenly and terrestrial realms, which were occupied by various spirits. God resided outside this hollow sphere and held it, as it were, in his lap.

The history of the changes leading up to our modern astronomical conception makes a vivid chapter. How Copernicus contributed the idea of placing the sun at the centre of things, Kepler the idea of the orbits of the planets as ellipses, Bruno the idea of the boundlessness of space and time, and how Galileo, corroborating these theories by empirical investigations, was put under the ban of the church — all this shows what heroism must have been required to tear down a time-honored

and firmly intrenched traditional conception. Probably the speculative astronomers were not conscious that they were undermining the whole astronomical structure, and probably their sole motive was to simplify the Ptolemaic conception, not to destroy it. For Copernicus accepted the Ptolemaic system, except that he put the sun instead of the earth at the centre, and thereby simplified it by making many of the epicycles unnecessary; and Kepler simplified it further by supplanting the epicycles with ellipses. However, the result was inevitably an entirely new conception of the universe, and with it a new conception of the relation among particular material things. It was in this way that new scientific methods arose.

The universe now comes to be regarded as a mechanism, and what was formerly looked upon as the influence of spirits or as Providential guidance becomes an impersonal law of causal necessity. In the heavens above and the earth beneath there are no longer vital forces and supernatural influences. *The universe becomes a homogeneous whole throughout*, in which there is no difference between the fall of an apple and the revolution of the planets, no distinction between terrestrial and celestial spheres. The Christian heaven is nowhere in it; the Mediæval spirits are banished from it. The Greek gods have been pushed out, and the Christian God has been made to stand aside.

The demand that the new conception of the universe be verified in concrete experiments, if it were to replace the old Ptolemaic system, the revival of the study of Archimedes, the rivalry in trade and inventions among the Italian towns, were three causes for the demand for greater exactness. Investigation, experiment, and inven-

tion came into vogue. Magic, alchemy, astrology, and conjurations were no longer accepted as serious methods. In the Middle Ages deduction had been purely the logical employment of the syllogism in theological discussions, while induction, so far as it was used at all, had been the reference of nature phenomena to spiritual forces. Now deduction and induction¹ come to be used for other purposes, and mathematics is necessarily conjoined with both. The new Natural Science period is essentially a "strife of methods"; it is the period when the true plan of scientific procedure is being determined. It is here that the importance and influence of Galileo is seen upon modern science and philosophy.

The influence of mathematics in modern times grew up from these astronomical beginnings among the Humanists; and the Natural Science period with its contention as to methods was the immediate result. Bacon, for example, regarded final causes as one of the "idols." Hobbes maintained that physics has only to do with efficient causes; Descartes held that it is audacious in man to think of reading the purposes of God in nature; while Spinoza thought it absurd to attribute divine purpose to nature. By degrees everything in nature came to be regarded as a mechanism, and there was no distinction between the animate and the inanimate. The discovery of the mechanical circulation of the blood by Harvey, in 1626, became a vigorous impulse toward the mechanical study of animal life. Descartes regarded animals as complex automata and on this line he published essays on dioptrics, musical law, and the

¹ Induction and deduction are methods of reasoning. Induction is the method of beginning with particular cases and inferring from them a general conclusion. Deduction is the opposite method of reasoning.

foetus. Hobbes applied mechanical law to psychological phenomena. The study of reflex action was carried on with great vigor in the Low Countries and France. The mechanical theory was rendered complete in this early time by the exclusion of the soul from the explanation of the body of man, just as God had been pushed into the background of the universe.

Galileo Galilei (1564-1641).^{*} The dates of the life of Galileo show him to have been a younger contemporary of Bruno, and, like Bruno, to have been a victim of the ecclesiastical reaction that was sweeping away all scientific freedom in Italy. But while Bruno belonged both chronologically and in spirit to the first period of the Renaissance, Galileo is the true beginner of the second period. Bruno was a philosopher of nature, while Galileo was a true scientist. *Galileo gave to all future thought a wisely formulated method of dealing with the new materials of the nature world.* His laws of projectiles, falling bodies, and the pendulum created a new theory of motion. He set the hypothesis of Copernicus upon an experimental basis and made the future work of Newton possible. He was professor at the Universities of Padua and Pisa, and he was mathematician and philosopher at the court of Tuscany. That he perjured himself and thereby saved his life from the Inquisition, there is no doubt; but instead of death he had an old age of great bitterness. He gave open adherence to the Copernican system in 1610, when he constructed a telescope and discovered the satellites of Jupiter; and after this there followed discovery after

^{*} Read Höffding, *Hist. of Phil.*, vol. i, p. 175; Ball, *Hist. of Math.*, pp. 249 ff.; Falekenberg, *Hist. of Mod. Phil.*, pp. 59 ff.

discovery, like the spots on the sun and the phases of Venus, which latter discovery confirmed the Copernican hypothesis. He invented the hydrostatic balance, the proportional compass, the thermoscope, microscope, and telescope. His two most noteworthy writings are *The Dialogue concerning the Two Most Important World-Systems*, and *Investigations into Two New Sciences*.

As to method, Galileo objected to formal logic, that it is not a means of discovering new truth, although valuable as a corrective of thought. New truth is discovered when we frame an hypothesis from certain experiences, and then infer the truth of other cases from that hypothesis. The hypothesis is first formed by induction from a few characteristic cases; the inference to other cases is made by deduction. He therefore linked induction and deduction closely together, and conceived them as necessarily complementary in scientific investigation. Either induction or deduction alone is absurd and impossible. By induction alone we should be obliged to examine all cases, an impossible undertaking. By deduction alone we should be in the same straits as the Scholastics, and never discover new laws. We must begin with our perceptual experiences and make an induction from them; then we must bring mathematics into use in constructing the hypothesis from which to deduce (calculate) new cases. This is the true, modern method and reveals the great genius of Galileo.

A mathematical law never exactly coincides with any particular concrete relations. A mathematical law is an hypothesis or ideal construction. What value, then, has a mathematical law for science? The orbits of planets ¹

¹ An example used by Galileo is the law of the velocity of falling bodies in empty space.

are described as ellipses, but no actual planet moves in a perfect ellipse. The ellipse is an hypothetical, mathematical orbit for a planet which has no disturbing influences upon it. We get at such a law by the method of concomitant variations ;¹ and the value of it consists in the simplification and system that it gives the facts. For example, knowing that a planet would move in an ellipse if it suffered no perturbations, and then knowing the influences upon any particular planet, we can calculate its orbit. Mathematical law, although ideal, is the common rule under which all nature phenomena can be brought. However, only by measurements founded on the tests of observation and experiment can we know how far the claims of such deduction are supported. Measure everything measurable, and calculate the measurement of those things not directly measurable.

Nature, therefore, must be called upon to explain her own phenomena. Since the laws of nature are found by investigating nature phenomena as we experience them, the laws must be a part of nature and can be found nowhere else. To explain nature phenomena by referring them to spiritual influence is no real explanation. To say that God moves the planets is to involve the subject in mystery. Here is where Galileo shows that he does not belong to the Scholastics or the Mystics or the Humanists. He searched for some constant element, and not for a "vital force" behind nature phenomena. He declared this constant element to be motion — measurable motion. He is the author of the theory that mechanics is the mathematical theory of motion.

¹ The name, "concomitant variations," was later given by John Stuart Mill.

Science was therefore taken by him out of the paralyzing grip of the theologian.

The Life of Francis Bacon, Baron Verulam (1561–1626). Francis Bacon was a native of London and received his university education at Cambridge. He was in the English diplomatic service at an early age, but he later returned to London and took up the legal profession. At the age of thirty-two he entered Parliament and became immediately distinguished as a debater. At forty-three he became legal adviser of the crown, and when he was fifty-six he was made Lord Chancellor. After a brilliant career in public office he was accused and convicted of bribery and corruption, deposed from office, and heavily fined. His most notable writings are his *Essays*, two parts of his uncompleted *Instauratio Magna*, viz., *De Dignitate et Augmentis Scientiarum* and *Novum Organum*, and his *New Atlantis*, a Utopian fragment.

The Position of Bacon in Philosophy. Tradition has frequently placed Bacon as the founder of modern philosophy. This estimate is due to a remark by Diderot, which was repeated by many French writers. The estimate, however, rests on a misapprehension of Bacon's influence. Bacon was more of a Humanist than a technical philosopher, and in his constructive philosophy he seems not only to have had no influence upon his contemporaries, but also to have been uninfluenced by them. He was unconscious of the influence of Kepler and Galileo and their mighty scientific constructions. Bacon's *Novum Organum*, which embodies his scientific methods, had no influence upon his own time, nor was it read in the seventeenth century. Its influence was first felt in the eighteenth century. However, all this

must be qualified in one respect. Bacon's *New Atlantis* did have an immediate influence. The ideal of a college of science, which Bacon presented in his *New Atlantis*, was not only the cause of the work of Diderot in his *Encyclopedia* in the eighteenth century, but what is more important, it had effect in his own time. It led to the founding of the Royal Society, thirty-six years after Bacon's death, and later to the founding of similar academies abroad. While the reader may be confused by the conflicting estimates of Bacon, the words of his own countryman, Sir David Brewster, may be accepted as embodying the truth: "Had Bacon never lived, the student of nature would have found in the works and writings of Galileo not only the principles of inductive philosophy, but also its practical application to the noblest efforts of invention and discovery." So far from being the founder of modern science, Bacon developed only one side of it, the inductive side, and that without success. He identified deduction with the Aristotelian syllogism, and he was therefore unaware of the importance of the use of mathematics in the method of deduction. He did not seem to have the slightest idea that mathematics was going to be the scientific method; consequently science has gone much further than Bacon dreamed it would go. Bacon's importance in the Renaissance does not consist in his contribution to the content of philosophy or to his successful formulation of the scientific method.

Wherein then lies the value of Bacon's work as a philosopher? * Bacon was the first in England to col-

* Read Ball, *Hist. of Math.*, pp. 253 ff.; Höfding, *Hist. of Mod. Phil.*, vol. i, pp. 184-186; Macaulay, *Essay on Bacon*; Bacon, *Essays*, — *Studies*, *Truth*, *Friendship*,

lect the fruits of the Renaissance and give them a secular character. Taking them out of the hands of the theologian, he, a lawyer, "gave them a legal existence by the most eloquent plea that has ever been made for them." It was a time when philosophy and science were passing out of the hands of the theologian; and Bacon, feeling that science, including philosophy, should be secularized, drew a sharp line between the work of science and that of theology. Out of his great contempt for antiquity, Bacon voiced for England the contemporary reaction against the old scholastic methods. *He set up the ideal* and gave directions for following it. He issued the call to go from abstractions back to things. A man of worldly wisdom and pungency, his nature was buoyant in its belief in the coming age. He had confidence amounting to an optimism that final principles would be found to explain all the particulars of the "new world." He was a prophet who outlined his prophecy. He felt that not only nature but all the activities of man would be reduced to some simple principles. He shared and expressed the confidence of his time that wonderful things were to be revealed; that nothing is impossible to man, provided man hits upon the right key to nature's secrets. Just as every age, that feels itself upon the threshold of a new epoch, writes Utopias,¹ so Bacon wrote the *New Atlantis*, the Utopian fragment, for his age. This is the literary expression of his optimism

Simulation, and Dissimulation; Abbott, *Francis Bacon*; Eucken, *Problem of Human Life*, pp. 336-344; Rand, *Modern Classical Philosophers*, pp. 24-56.

¹ Bacon wrote his *New Atlantis* in 1623. The same year Campanella wrote his *State of the Sun*, and the preceding year Thomas More wrote his *Utopia*.

about the future of a distinctively secular science. The world of the *New Atlantis* is the world of new machines. Bacon's most ambitious scientific contribution to the same end is his *Instauratio Magna*. Of this only two parts were completed: *De Dignitate et Augmentis Scientiarum* and *Novum Organum*. Bacon is best known in philosophy by the second part, which was thus named to contrast it with the "old" *Organum* of Aristotle.

The high influence that Bacon gained later among philosophers may therefore be accounted for by the association of his eminent position and wonderful personality with his bold expression of this congenial utilitarianism. Even in that rich Elizabethan age of English literature, he was prominent as a writer and politician. He had occupied high political positions under James I; but his peculiar personality would in itself have attracted attention, for his genius was such that any of the products of that age—even the plays of Shakespeare—have seemed possible to him. Pope describes him as "the wisest, brightest, meanest of mankind." Macaulay says in his essay, *Bacon*, that there were many things that he loved more than virtue and many that he feared more than guilt. His career shows that he loved himself, wealth, and learning. His unusual love for learning may be safely taken as his excuse for his unscrupulous lust for wealth. His great versatility prevented his success in any one direction, but he had the power of expressing the feeling of his impressive age and of becoming its personal representative.

The Aim of Bacon. Bacon sought to secularize philosophy by making it the same as science. It was the age when Nature was conceived to be identical with the

world of the natural sciences. Bacon stood in this age as the formulator of the scientific usefulness of philosophy. Philosophy is to ameliorate social conditions and enrich human life by bringing nature under control. Ancient and mediæval times had not been occupied with the improvement of human society, but Bacon was inspired with the feeling of the modern statesman for such improvement. The true test of philosophy, according to Bacon, is what it will do. That philosophy is worth while which will effectively remove the weighing conditions upon human society, so that there are no longer two classes, — those that sacrifice and those that satisfy their ambitions. This dominant utilitarian motive in Bacon sets him in opposition to pure theoretical and contemplative knowledge, and makes him the father of utilitarianism and positivism¹ in England.* Knowledge is the only kind of permanent power, and man can master the world when he gives up verbal discussions and belief in magic. Man must gain a positive insight into nature. Science and philosophy must be separated from theology, and philosophy must be reduced to science. Thus while aiming to give a tangible form to the scholastic doctrine of the “twofold truth,” Bacon through his utilitarianism missed the goal reached by Galileo and Descartes.

The Method of Bacon. Bacon says that the method of the scientist should not be like that of the spider

¹ Utilitarianism regards adaptation to general happiness as the ideal of society. Positivism, broadly used, is that philosophy which limits the scope of thought to the observation of facts, although the observations are inferior to the facts. The data and methods of positivism are the same as those of natural science, and opposed to the *a priori* methods of metaphysics.

* In this connection read Herbert Spencer, *Education*.

that spins a web out of himself, nor like that of the ant which merely collects material, but like that of the bee which collects, assimilates, and transforms. Bacon's original inspiration had been his respect for method, and this grew more pronounced. Philosophy, *i. e.* science, is method. With Bacon we see the beginning of philosophy cut loose from personality and over-valued because it had mechanical accuracy. Nevertheless, the method of Bacon was very comprehensive. It included on the one hand a critical survey of the past, and on the other an anticipatory programme for the science of the future. Let us now turn to these two aspects of his method.

(a) *Bacon's criticism of the past* was a trenchant criticism of prevailing philosophy, and amounted to a break with the past. Bacon felt that what passed for science in his day was but a pretence. In the presence of the facts of life traditional science was but empty words. The early thinkers are not the ancients. We are the ancients, for we embody in ourselves all the preceding centuries. Thus does Bacon swing from the mediæval blind acceptance of the past to an equally blind rejection of the past. But why did the ancient thinkers err? Not because they were not men of talent, nor because they lacked in intellectual opportunity; but because their method of procedure led them astray. The early thinkers followed wrong paths, and their results, which we now possess, are vain.

What must be our attitude in the presence of this traditional philosophy? We must dispossess ourselves of the prejudices that have misled the past, for they form the obstacles to our true knowledge of the world. The roots of the errors that have infected philosophy

are "fantastic, contentious, and delicate learning." We must not, indeed, trust to our every-day perceptions; for although science is based on our perceptions, our every-day perceptions are corrupted by our uncritical habits of thought. Thus there have arisen perversions and falsifications, of which we must first of all be rid. Bacon calls these Idols.¹ Idols are false images, that intervene between us and the truth and are mistaken for reality. Bacon makes four general classes of Idols:—

(1) The Idols of the Tribe, or the presuppositions common to the human race.

(2) The Idols of the Cave,² or individual prejudices due to natural individual disposition, situation in life, etc.

(3) The Idols of the Forum, or the traditional meanings of words, by which we substitute the word for the idea. These are the worst illusions.

(4) The Idols of the Theatre,³ the theories or philosophic dogma, which command discipleship from groups of men and have not been subjected to our own criticism.

Bacon's classification of our prejudices as Idols is a critical attempt to separate, in what passes for knowledge, the subjective, which has become traditional, from the real. Logic, religion, and poetry have had a bad effect on science, as is especially shown in the theatrical character of philosophy.

(b) Having dispossessed ourselves of our prejudices or

¹ Bacon chooses the word Idols, because it is the same as the Greek word for false forms (*eidola*, εἰδωλα).

² Bacon is here alluding to Plato's myth of the cave. Read Plato, *Republic* (Jowett's trans.), Bk. VII, 514 A-520 E.

³ Bacon is satirical here and is likening philosophical systems to stage-plays.

Idols, we are ready to proceed to a positive construction of a scientific method of work. By what, in general, ought science to be guided? By induction and experience. Bacon suggests the following steps for the science of the future: —

(1) There must be an exhaustive collection of particular instances.

(2) There must then be an analysis and comparison of these instances, for to Bacon induction was not a mere enumeration of single instances. Negative instances, and instances of difference of degree, must be taken into account. Hasty generalizations must be avoided, and we must ascend gradually from the particular to the general.

(3) The simple “form” of the phenomenon must be discovered. Of the four causes of Aristotle, Bacon emphasizes the “formal.” By “form” Bacon means the nature that is always present when the phenomenon is present, absent when the phenomenon is absent, and increases or decreases with the phenomenon. The “form” is the abiding essence of the phenomenon.

The English Natural Science Movement. The natural science movement in England thus received at the start the impression of the sober Anglo-Saxon mind. Through its entire history English philosophy differed from that of the Continent. Here at the outset the Englishman is skeptical, not only of scholastic deductions from dogma, but also of deductions of all kinds.¹ He prefers the slow road of patient empirical discovery. Even pure contemplative knowledge and the deductions of mathematics have little charm for him. To be sure, induction even in the hands of an Englishman demands

¹ But see the contradiction in the theory of Hobbes.

by its nature the establishment of a general principle, but Bacon would have refused to use such a deduction to establish a new truth in the way that Galileo used his mathematical hypotheses. According to Bacon, an hypothesis is true only so far as it has already received the indispensable sanction of experience.

Thomas Hobbes * and his Contemporaries. During a certain period Bacon had under him a secretary by the name of Thomas Hobbes. Here was an obscure man turning to philosophy because of his interest in politics; whose point of attachment to philosophy was the mechanical theory of nature, so universally accepted by the scientists of that time. No contemporary of Hobbes — neither Bacon, Descartes, nor Galileo — had so systematic a philosophy. No other man succeeded better in expressing all that was in his mind. Hobbes was one of a large group of political theorists of the Renaissance. When the mediæval idea of the universal Christian state, such as was embodied in Augustine's *City of God*, was no longer held, many of the Humanists tried to construct theoretical systems of political government that would meet the demands of the time. Macchiavelli, Thomas More, Bodin, Althusius, and Gro-tius¹ belong to this group. Hobbes is best known in modern times as a writer on this aspect of morals

* Read Robertson, *Hobbes* (Blackwood's *Phil. Classics*), pp. 204–206; Falckenberg, *Hist. Mod. Phil.*, pp. 71–72; *Encyclopædia Britannica*, article, "Hobbes"; Leslie Stephen, *Hobbes*; Watson, *Hedonistic Theories*, pp. 73–94; Turner, *Hist. Phil.*, pp. 443–446; Windelband, *Hist. Phil.*, p. 389; Eucken, *Problem of Human Life*, pp. 359–360; Rand, *Modern Classical Philosophers*, pp. 57–69, 80–84.

¹ See also the ideal States of Campanella and Bacon, p. 41.

and politics; but politics is only a part of his general mechanical system of the universe. He is the forerunner of modern materialism, and his peculiar theory of society is only an exemplification of this theory.

In passing from Bacon to Hobbes we come to a very different type of man. Bacon had risen to fame by his own genius, in spite of the hostility of his powerful relatives; Hobbes was a hard-headed man, with a narrow outlook, but with undoubted talents, which were fostered all his life under the patronage of the Devonshire family. Bacon was a practical politician; Hobbes was a doctrinaire and theoretical political writer. Of the voluminous literary remains of Bacon his philosophy forms but a small part; Hobbes had a general philosophical system, with which his classical and theological studies have connection.

In the succeeding chapter we shall review the philosophy of the rationalist, Descartes, who was a contemporary of Hobbes. We shall find that Descartes and Hobbes are alike in this: that both employed Galileo's mathematical theory as authoritative. They differed, however, in the way in which they used Galileo's theory. Descartes reduced mathematics to the rational, and conceived it to be the instrument of the reason; Hobbes reduced the rational to the mathematical, and conceived the reason as a form of mechanics. The starting-point of Descartes was the subjective, and he was held at a standstill until the relation of thought and mechanics was solved by him. The point of view of Hobbes was objective, and since all was mechanical, he discussed only incidentally the relation between thought and mechanical existence. Hobbes conceived the world in the

terms of only one series, the mechanical. Descartes' main motive was to preserve the rational; and, consequently, the world to him consisted of a double or dualistic series of terms. We therefore place Descartes, with Spinoza and Leibnitz, in a group called Rationalists. Hobbes was a materialist, and his greatness consisted in going the full length of materialism: he went beyond all the scientists of his time by extending the mechanical theory to the mental life.

The Life and Writings of Hobbes (1588-1679). The life of Hobbes falls into five natural periods. In his first and last periods he was the classical scholar. During his middle period of about thirteen years he was the philosopher. Furthermore, at one time he was absorbed in mathematics and at another in controversy. His period as mathematician was begun not until he was forty years old, and was preparatory to his creative philosophical period, which was begun when he was about fifty.

1. *As a Classical Scholar* (including his early years) (1588-1628) — the first forty years of his life. At Oxford (1603-1608); first journey abroad (1608-1612); beginning of his relations with the Devonshire family and also of his acquaintance with the "new science"; time of leisurely study (1612-1628) and acquaintance with Bacon, Herbert of Cherbury, and Ben Jonson; translation of *Thucydides* (1628).

2. *As Mathematician* (1628-1638). Second journey abroad (1629-1631) for eighteen months as tutor to the son of Sir Gervase Clifton; reads *Euclid* while abroad; third journey abroad (1634-1637), when he meets Galileo; begins to develop the conception of motion and sensation; by 1638 he is counted among the

notable philosophers and he meets the Parisian scientists, Mersenne and Gassendi.

3. As *Philosopher* (1638–1651). Plans his philosophy under title of *Elements of Philosophy: De Corpore, De Homine, and De Cive*, which is interrupted by the English Revolution; *Elements of Law* ("little treatise") written in 1640, read by a few in manuscript, published without his consent in 1650 in two parts: *Human Nature* and *De Corpore Politico*; flees to Paris (1640) and enters again the scientific circle at Paris; criticises Descartes' *Meditations*; *De Cive* published (1642), which is *De Corpore Politico* enlarged; acts for a time as tutor to Charles II in Paris; engages upon his general philosophical theory (1642–1645); *Liberty and Necessity*, written (1646), published (1654); *Leviathan* published (1651).

4. As *Controversialist* (1651–1668). Flees back to London (1651); *De Corpore*, published (1655); *Behemoth*, written (1668), proscribed and not published until after his death; controversies with Bramhall, Ward, Wallis, and Boyle; *De Homine*, published (1658).

5. As *Classical Scholar* (1668–1679). Translation of *Iliad* and *Odyssey* (1675).

In Molesworth's edition (1839–1845), Hobbes' Latin works occupy five volumes, the English eleven. The *Elements of Philosophy* — the *De Corpore, De Homine, and De Cive* — were not published in the sequence in which they were planned, but, on account of political exigencies, in the above order.

The Influences upon the Thought of Hobbes. 1. The premature birth of Hobbes had no inconsiderable influ-

ence upon his life. When his mother was carrying him, she had suffered a great fright, at the announcement of the approach of the Spanish Armada. Was it in consequence of this that Hobbes's life was a series of panics and controversies? He was extremely conservative in politics. He saw the new changes without sympathy with either party, and he had no political ideals — only fear. The time in which he lived reinforced this natural conservatism. When he was translating *Thucydides*, Buckingham was assassinated and the Petition of Rights was presented. Henry IV of France had been assassinated not many years before, and the Puritan element had become a disturbing factor in England. His study and his alliance with the Devonshire family confirmed him in his conservative position. All signs of the time pointed toward decentralization of government, toward war and rebellion. In fear he was "the first that fled" to France at the beginning of the troubles of Charles I; in fear he fled back to London eleven years later, lest the Roman Catholics, whom his *Leviathan* had offended, should murder him. Hobbes was again in great panic over the London fire and looked upon it as a divine penalty, on account of the impurity of the English court. Hobbes was always in fright lest he might not have peace.

2. The father of Hobbes was one of the unworthy clergymen of the English Established Church in the reign of Elizabeth. He was a dissolute man, and after many escapades he abandoned his family. In consequence of this Hobbes always had an antipathy toward the offices of the church and toward theology. Although he claimed to be a communicant, his allegiance was only nominal, as his theory will show.

3. Hobbes was very much influenced by the new mathematical science. His years at Oxford left little impression upon him, and he was but little interested in the scholasticism which was taught there. Yet his twenty years on the Continent brought him into the midst of the scientific circles of Italy and France. He was well along into maturity when he felt this influence. On his second journey, he read *Euclid* for the first time. He was then forty-three. On his third journey, he met Galileo and the French scientists, Mersenne and Gassendi, and it was then that he began his reflections concerning motion and sensation. The writings of Kepler, Descartes, and Galileo influenced him mightily. Although he acted as Bacon's secretary after the latter's fall, Bacon's influence upon him was little and has been overestimated. The mental powers of Bacon and his secretary were different, and Bacon knew nothing of the mathematical method. Hobbes shows to some degree the empirical tendency of his nationality, and he believed that knowledge must spring from experience. Further than this, the method that Bacon pursued does not appear in him. *The mission of Hobbes was to construct a mechanical view of the world.*

Of the three influences upon Hobbes, his inherited timidity is seen in his conservative political theory; the influence of his father is seen in his theory of religion; the influence of the "new" mathematical science is seen in his whole philosophy, especially in his psychology.

The Fundamental Principle in the Teaching of Hobbes. The assumption from which Hobbes deduced his entire philosophy was the mechanical conception of the physical world, — the characteristic philosophical

assumption of his age. Hobbes's contemporaries, both the natural scientists and the philosophers, had, however, on the whole, restricted the conception of mechanism to the physical world. Hobbes differed from them all in universalizing the conception. He extended its application from the physical over upon the mental realm, and thereby reduced the mental world to physics. He stated this mechanical principle in two parts: *all that exists is body; all that occurs is motion*. Hobbes applies this assumption to the physical world and it gives him materialism;¹ he applies it to knowledge and it gives him sensationalism;² he applies it to the will and it gives him determinism;³ he applies it to morals and politics and it gives him naturalism.⁴ Body is nature; body is everything. Body is the first term leading through man up to the State. With Hobbes, as with others of his time, the political field was the whole ground to be penetrated. The fundamental principle, by which Hobbes thought the whole field was to be explained, is body in motion. The mental world became drawn into the physical, and thereby his mechanical conception became the more natural.

There was one realm which Hobbes left untouched by his principle: the realm of the spirit, *i. e.* God, souls, angels. The science of bodies cannot deal with

¹ The theory that the assumption of extended, impenetrable, eternal, and moving bodies explains the universe.

² The theory that all knowledge originates in sensations; that all complex mental states (like memory, reason, etc.) are only combinations of elementary sensations.

³ The theory that between alternative courses of conduct the choice decided upon is fully accounted for by psychological and other preconditions.

⁴ The theory sometimes meaning materialism, sometimes positivism, but sometimes, as here, meaning that man in all his operations is a product of his environment.

the supernatural, for the supernatural does not consist of bodies in motion. Matter and mind are homogeneous ; matter and spirit are not. The contrast in Hobbes is not between matter and mind, the material and the psychical, but between matter and spirit, the material and the supra-material.

The Method of Hobbes. Hobbes made the method of Galileo his own. He believed that all knowledge is rooted in mathematics. There is one true method of treating all subjects : the mathematical calculation of them as motions of bodies. Knowledge consists in using words as the signs of experience and in reckoning with them. Scientific thought is the combination of signs. It is the rationalizing of our experiences. Science has a truth in itself and stands as a rationally organized world, quite different from the world of experience which it has organized. The world of bodies in causally related motions is such an organized world, the most systematized and most simply constructed world that science can devise. But how does the scientist proceed? He begins with a phenomenon, which is a body in motion, and finds out the causes of the phenomenon, which causes are nothing more nor less than the elements of the phenomenon in question. Then the scientist proceeds from the causes to other phenomenal effects. These new effects are like the original phenomenon and its causes, — bodies in motion. Thus the world of the scientist is a world of causes and effects, for “the natural reason of man is busily flying up and down among the creatures, and bringing back a true report of their order, causes, and effects.” Thus we find Hobbes to be a nominalist (see vol. i, p. 358) who, nevertheless, used the deductive method — rather

a strange combination. Like all his English successors, he employed induction and deduction, but the two processes never became fused.* Moreover for induction he has no method.

The order in which the writings of Hobbes appeared seems to have been the sport of outward events, for they were not written according to his original plan. On his return from his third journey to the Continent (1638), Hobbes, then fifty years old, had adopted the mechanical theory and had planned his philosophy. His comprehensive work was to be called the *Elements of Philosophy*, and was to be divided into three parts: *De Corpore*, treating physical bodies; *De Homine*, treating man as a psychological individual; *De Cive*, treating man as the citizen of a State. Hobbes's philosophy was therefore to be a universal philosophy, and he intended to bring his works out in logical order — first, the science of physics, then of human nature, and last of society. However, the growing disturbances in the political world at that time moved him to publish several treatises on politics first, and his physics and psychology more than fifteen years later.

The Kinds of Bodies. There are two kinds of bodies, natural and artificial. Natural bodies are those belonging to the physical world. The artificial bodies are the institutions of society, of which the most important is the State. Man belongs to both classes of bodies — he has a physical nature and he is a member of the State. Man is the connecting link between natural and artificial bodies. Philosophy is therefore divided into

* Read Falckenberg, *Hist. Mod. Phil.*, p. 72, for his quotation from Grimm's criticism of the irreconcilable contradiction of the empirical and the rational in Hobbes.

three parts: *physics*, which treats of purely natural bodies ; *psychology*, which treats of man in his rôle as a natural individual ; *politics*, which treats of man in social congregations with his fellows. Looking at the situation from the other end, political bodies are decomposable into men, men are in turn decomposable into physical bodies. Political bodies are dependent on the psychical nature of men, and the psychical nature of men is dependent on the nature of physical bodies, *i. e.* on bodies and their motions. Thus all bodies, natural and artificial, must be explained in terms of motion, if they are explained scientifically. Physical bodies are the first term leading up through man to the last term in the series, which is the State.

Hobbes's Application of the Mathematical Theory to Psychology. Although the prime interest of Hobbes lay in the political life of man, he nevertheless made an original contribution to psychology. He snatched the science of mental phenomena from the hands of the scholastic theologian and made it for the first time an independent science. Psychology had been based upon the assumptions of the theologian ; for these Hobbes substituted the assumptions of the mathematician. Consciousness became in his hands not a soul, but the motion of bodies. It is described by him as "the movement of certain parts of the organic body." The states of consciousness, such as sensations, perceptions, etc., are brain movements or the refined movements of atoms in the nervous system. Memory and imagination are "decaying sensations" ; thought is the sum of several sensations ; experience is the totality of sensations bound together by the rigid laws of association. Hobbes was the father of what is known as the Associational Psy-

chology, or the theory that consciousness is composed of mental atoms under fixed laws of association.

But although Hobbes took psychology out of the hands of the theologian and made it a mechanical science, he did not identify it with physics. It is still psychology. The mental states are the physical motion of bodies, but they are not external motions, nor are they the copies of the external motions of bodies. Mental states are brain movements ; they are the *result* of external motions. They come about in this way. A moving body in the outer world makes an impression on the sense organ, and this motion is transmitted by the nerves to the heart and brain. A reaction is effected in the brain, and this is a mental state. The brain transformations, and not the movement of the external object, is that of which we are conscious. The mental state is an "apparition" of the actual fact in the external world ; it is an effect in a causal series. Our perception of light is, for example, a modification of the cerebral substance, and not of the external body itself. We deceive ourselves when we think that the sensations of light, sound, heat are outside us. These qualities of things are modifications of ourselves. There is nothing external to us, except the motions of bodies which are the causes of these modifications. The external world is no doubt real, but we have no knowledge of it — no knowledge of aught save the motions of bodies within ourselves. *This is the point of view of all subsequent English philosophy : the substance of things is quite different from our knowledge of them. The substance of things is real ; but is not the object of our knowledge. The object of our knowledge is a modification of ourselves.*

The independence of knowledge with reference to theology on the one side, and to physical reality on the other, is well illustrated in Hobbes's discussion of language. Speech consists of words, which are only the counters of things. Words are markers by which men may know a thing as "seamen mark a rock." Science consists in their manipulation. Science combines them by addition and subtraction into judgments and syllogisms, and thereby constructs a body of demonstrated principles. Words are only counters, and he is a fool who mistakes the counter for the coin of reality. Words only represent reality, and the law of their use is mathematics. Truth and falsity are terms that are concerned with the correct or incorrect manipulation of these verbal counters and not with real things.

Hobbes's Application of the Mathematical Theory to Politics. In the same way that material bodies in motion give rise to mental states, and mental states as bodies in motion give rise to the human consciousness, so men as individuals are the source of the artificial body, — the State. In every individual man the impulse to self-preservation is innate, and is, in fact, his absolute and universal characteristic. Just as the law of the mechanical association of ideas is the fundamental principle of the human mind, so the mechanical law of self-preservation is the principle of man's ethical and political life. All our political institutions are the result of the striving of men for self-preservation. In his natural state — when, as Hobbes conceived, man lived without social organization — man had no other standard for conduct than his own self-interest; in the artificial political state, which man has constructed, self-interest is still his motive. Egoism is the sole working

principle of human beings both before and after they live in societies ; but the political state is the most ingenious contrivance which egoism has hit upon for its own profit. Hobbes conceived that the original state of man, which under the name of "state of nature" was a common problem in the Renaissance, was a condition in which every man was making war against every other man. (Compare Locke and Rousseau.) But such a condition of things was obviously self-destructive. Consequently man arbitrarily and artificially formed the political State to avoid this self-destructive, internecine warfare. Under the circumstances it was the most effective way in which man could gain his personal ends, for the political State was the only possible means to peace. In the "state of nature" the right of every man to everything was the equivalent of the right of every man to nothing. So men made a compact with one another under which each relinquished a portion of his rights in order that each might have a portion of them secure. But what gives security to this compact? The sovereign to which the powers of the many have thus been delegated. What is the sovereign? It is the soul of the State, the general will, — represented by a single person in a monarchy, by an assembly in a republic. This sovereign, in whom the contract is vested, is absolute ; for the sovereign was not a party to the original contract, since he did not then exist. The contract was made among the individuals, at that time in a "state of nature." So long as the State preserves its power among the people, the people must render their obedience to the State, — to the sovereign in whom the contract was vested. The might of the political State makes right. Whatever the State commands is right ;

whatever is forbidden is wrong. There was no right and wrong in the "state of nature," only the possible and the impossible. An act is a crime when it breaks the contract, and thus the ground of morality is political legislation. Even the religion of the people is determined by the State. Any political State is better than a revolution. Here was philosophical justification of Charles I. A reversion to war is a reversion to the "state of nature."

When Hobbes was in France as a refugee he wrote the *Leviathan*, which contained this doctrine of political society. He presented a vellum-bound copy to Charles II, hoping to gain favor with that prince. However, the *Leviathan*, unfortunately for Hobbes's purpose, contained two paragraphs that antagonized the royalists and the Catholics. One was, that when a commonwealth is unable to protect its citizens in peace, that commonwealth is dissolved and a new sovereign commonwealth is formed. The second was, that while the sovereign state shall decide what the religion of its people shall be, no religion is infallible — neither Anglican, Catholic, nor Puritan. The religion that the sovereign makes legal is only a temporary one; the true religion will come not until the Last Judgment. The church is subordinate to the State, like everything else, and it does not matter much what the State religion shall be, provided there be peace. Religion is only a superstition resting on a defective knowledge of nature, and it is of little consequence what particular religion the State makes binding.

It hardly need be said that the *Leviathan* pleased neither Charles II nor the Catholics. The sequel of its publication was that Hobbes fled back to England from fear of assassination.

The Renaissance in England after Hobbes. The philosophies of Bacon and Hobbes do not exhaust, but merely represent the philosophy of England during the Renaissance. Empiricism ¹ had to wait for Locke in the next period before it became dominant. After Hobbes Scholasticism was narrowly confined to limited circles and appeared under the form of Skepticism or of Platonism, neo-Platonism, or Mysticism. The reaction toward Platonism was centred in a group of ethical scholars, called the Cambridge School. It included Culverwell, Cudworth, Henry More, and Cumberland. This Platonic movement was short-lived. The scientific spirit, represented in the Renaissance by Bacon and Hobbes, dominated the next period,—the Enlightenment,—and we shall find it spreading its influence over France and Germany in the form that Locke gave to it.

But the history of the philosophy of the Renaissance is not yet completed. Contemporary with Bacon and Hobbes, there was a movement on the Continent which was more characteristic of the Renaissance, and indeed more important to it than the movement in England. This was the school of Rationalists, to which we now turn.

¹ Empiricism and Rationalism have reference to the source of truth. Empiricism is the theory that truth is to be found in immediate sense experience. The opposite theory is Rationalism, which declares that the reason is an independent source of knowledge, distinct from sensation, and having a higher authority.

CHAPTER V

THE RATIONALISM OF THE NATURAL SCIENCE PERIOD OF THE RENAISSANCE

The Nature of Rationalism. Although the new science grew apace, it was not altogether a safe vocation. Natural science involves metaphysical questions at every point. The scientist at this time, therefore, found himself often in delicate relations with the jealous church guardians. A scientific explanation of the universe might antagonize the church dogma concerning God, creation, and the final outcome of the world. The church doctrine concerning the soul, too, its nature and its immortality, its relation to the body, might be antagonized by physiological and psychological discussions. In such dilemmas as these the natural scientist was not successful in pretending to isolate himself entirely from theology and in assuming an attitude of aloofness to it. Galileo might declare that, whatever the results of his investigations in physics might be, they had nothing to do with the Bible; but he sorrowfully found that the Inquisition thought otherwise. Copernicus found that his astronomical theories came into conflict with church dogma, and he was tormented by his bishop. Kepler spent his later years in a deadly struggle with both Protestantism and Catholicism. Bacon and Hobbes lived in a country where their personal safety was fairly secure, nevertheless Bacon disguised his position by using large words and Hobbes was untroubled because he accepted the religion of his sovereign.

If the position of those was difficult who tried to keep themselves strictly within the limits of science, how much more fraught with personal danger was the position of those who openly constructed a new metaphysics? It would mean that a challenge was issued to the old Scholasticism by the same human reason that had already challenged and overthrown the old science. The group of men who did this were the Rationalists. The Rationalists were interested in science, but they were more interested in the metaphysical problems that science aroused. The human reason had been successful in the reconstruction of physics by the use of mathematics. Why should it not also be able to reconstruct metaphysics and set it, too, upon a mathematical basis? The leaders of this school were Descartes, Spinoza, Leibnitz, and the Occasionalists, — Malebranche and Geulinx. The Rationalists advanced a new conception not only of nature, but of God; new theories not only of the human body, but of the soul. Their task was the dangerous one of bravely invading the hitherto impregnable realms of the spirit.

The task of the Rationalists was rendered the more difficult because, for the first time in the history of European thought, the inner and outer worlds had been completely sundered. For the first time do we meet with a clear-cut and positive dualism. The history of the growth of this dualism had been a long one, and to it the Greek Sophist, the Stoic, and the Christian had each contributed his share. However, Galileo and his fellow scientists in this period of the Renaissance had so reconstructed the old "world of nature" that it had become irreconcilable to the "world of grace." These scientists believed that nature must be made to explain itself;

its events must be conceived as necessitated ; its processes as having the inevitableness of a machine. From the revolutions of the planets to the circulation of the blood, the movements of nature can be measured. The law of nature, that is conceived to underlie all this science, is mechanical causation. The researches of the scientists of the Renaissance had yielded a rich world of brute, inevitable, and scientific facts, and these stood in absolute fundamental contrast to the world of spiritual facts which were embodied in the church dogma. Apparently the problem of reconciling the "world of nature" and the "world of grace" had been solved by St. Thomas Aquinas in mediæval times. Now, however, the "world of nature" had been so reconstructed that the question was re-opened. How is the new "world of nature" to be brought into harmonious relation with that old, persistent, and settled dogma of the church ? How can the newly conceived mechanism of nature be harmonized with the realm of free conscious spirits, without giving up the conception of God as a rational being, and also without depriving the soul of its power of initiation ? The new science had therefore made it especially difficult on the one hand to reconcile a mechanical universe with an omnipotent God, and on the other to reconcile the mechanical human body with the free soul.

The struggle of the Renaissance with the Middle Ages is therefore concentrated in the development of the doctrine of this Rationalist School. It is studied here even better than by reading the two periods side by side. In Rationalism the Scholasticism of the Middle Ages and the Science of the Renaissance meet. Rationalism was a new science, but it was a new theology as well. It was a new scholastic philosophy ; for, while the Rationalists

thought that they were giving the death blow to mediæval philosophy, they were instead only replacing it with another scholasticism. In their attempt, by means of the mechanical theory, to get an absolute system of knowledge upon which thought can rest, the Rationalists were acting in the spirit of the schoolmen. In fact, no schoolman ever showed more vigor or more dogmatic confidence in his philosophy. To the mathematical eye of the Rationalist there was absolutely nothing mysterious in the physical universe or in the spiritual realm. All things in heaven and earth could be made clear. The declaration of the Rationalists was the call of freedom, but it was as hazardous as it was ambitious; and the church with its assured revelations always stood opposed to the realization of freedom. So we shall find Descartes spending his whole life trying to trim his sails that he may not offend the Inquisition; Spinoza saving himself from both the Jews and the Christians by living in obscurity and publishing nothing; Leibnitz constructing philosophy with the avowed purpose of reconciling science and religion.

The Mental Conflict in Descartes. The strife between the spirit of the Middle Ages and that of the Renaissance appears in Descartes more strikingly than in any other thinker of this time. He shows, on the one hand, all the conservatism of a churchman of mediæval time in his respect for institutional authority; on the other hand, his intellectual activity places him among the leading scientists of the Renaissance. In no other thinker does the conflict between the Old and the New appear so unsettling; in none does the antagonism between the scholastic world of spiritual things and the mechanical world of science appear so irreconcilable.

He suffered a life-long mental strife, for within himself mediævalism and science were engaged in an unending dramatic struggle. The philosophy of Descartes was a compromise between his traditions and his scientific genius; and his philosophy never overcame his conflicting motives. The admirers of Descartes have called him the father of modern thought, and this is partly true. The father of the modern scientific method was Galileo. Descartes, on the other hand, pointed out the incontestable principle from which modern thought has proceeded; he won his place in the history of philosophy by attempting to harmonize the old scholasticism with the new science under this single principle.

The Life and Philosophical Writings of Descartes (1596-1650).*

(1) *As Child and Student* (1596-1613).

At home until he was eight years old (1596-1604).

At the Jesuit school at La Flèche until he was seventeen (1604-1613).

(2) *As Traveler* (1613-1628). Descartes studies "the book of the world."

At Paris (1613-1617), in retirement and study.

In Holland (1617-1619), nominally attached to the army of Maurice.

First Journey (1619-1621), going through Bavaria, Austria, north to the shores of the Baltic and back to Holland. The greater part of these two years were spent in Bohemia, enrolled in the army of the Emperor. He was on this journey when his mental crisis occurred, —

* Read Robertson, *Hobbes* (Blackwood Phil. Classics), p. 40; Rand, *Modern Classical Philosophers*, pp. 117-147; Eucken, *Problem of Human Life*, pp. 351-362; Calkins, *Persistent Problems*, pp. 459-463.

at Neuberg, in Austria, in 1619. It was then that he discovered either analytical geometry or the fundamental principle of his philosophy.

In Paris again, 1623.

Second Journey (1623-1625), to Switzerland and Italy, making a pilgrimage to the shrine of Loretto.

(3) *As Writer* (1629-1650).

In Holland (1629-1649). For the sake of absolute seclusion from inquisitive visitors, Descartes changed his residence in Holland twenty-four times and lived in thirteen places. All his correspondence passed through Mersenne. During these twenty years he made three journeys to France. Thus this period of absolute retirement became his period of literary production, chiefly between the years 1635 and 1644. He wrote his

Method (1635-1637).

Meditations (1629-1641).

Le Monde (1630-1632), published posthumously.

Principles (1641-1644).

Passions (1646-1649).

(4) *In Stockholm, Sweden* (1649-1650). The romantic side of the life of Descartes appears in his book on the *Passions*, which he wrote for the Princess Elizabeth, and also in his acceptance of the invitation of the Queen of Sweden to reside at her court and become her tutor. He died there from the rigors of the climate after a residence of one year.

The Two Conflicting Influences upon the Thought of Descartes. On the one hand, all the ties of inheritance, family influence, and early education allied Descartes with the spirit of the Middle Ages. A delicate constitution made him shrink from public controversy and the public eye. He even made a half apology for

his pursuit of science by saying that he was seeking to reform his own life, and that it was absurd for an individual to attempt to reform a state. His family on both sides belonged to the landed gentry, and he was therefore bound by caste to the support of institutional authority. He was educated in the Jesuit school of La Flèche, and this most conservative of ecclesiastical influences restrained him from following the logical conclusions of his own thought. He was therefore both physically timid and intellectually aloof. In 1632 he was about to publish *Le Monde*, which was a scientific description of the origin and nature of the universe, and agrees in part with the Copernican theory. It was a treatise which would naturally conflict with the teaching of the church. He learned of the trial of Galileo at Rome, and he never dared to publish the book.

The rival spirit speaking in Descartes was the new scientific spirit of the Renaissance. He had a genius for mathematics even when he was at school at La Flèche. On his going to Paris he became the centre of the most notable scientific circle in France — a circle composed of such men as the Abbé Claude Picot, the physician Villebressieux, the optician Ferrier, the mathematician Mersenne, and many other scientists and theologians. But he became dissatisfied and made some long journeys in order to study “the book of the world.” His discovery of his method and his philosophical principle was the result. In mathematics he was the discoverer of analytical geometry and was the first to represent powers by exponents; in physics he stated the principle of the refraction of light in trigonometrical form; he explained the rainbow; he weighed the air. The same industrious application of the new scientific

methods that yielded great results in science, also resulted in his development of his philosophy. Love for original discovery made Descartes disdainful of all scientific authorities and even contemptuous of his notable contemporaries, Galileo and Harvey. He mentions by name Plato, Aristotle, Epicurus, Campanella, Telesio, and Bruno, but he claimed that he learned nothing from any one except Kepler. He felt himself to be above criticism, and in his self-arrogating dogmatism he is the type of the modern practical individualist. He defined truth as candor to one's self, and both in his practical life and in his theoretical ideal there is an entire absence of utilitarianism.

The Method of Descartes. Both science and scholasticism show themselves in the method of Descartes. He attempted to construct a philosophical method entirely in the scientific spirit of the Renaissance, but in the application of it he showed his scholastic training. Surfeited with inadequate and traditional methods he felt the need of some single principle by which all knowledge might be systematized, and he was sure that mathematics would furnish the key. Rational science was to Descartes only mathematics. Truth is to be found not in metaphysics, nor in empirical science. Descartes' philosophical aim was to establish a universal mathematics. Descartes was not entirely faithful to Galileo's mathematical principle in his employment of it, and his influence in metaphysics was thereby all the greater; for in the development of his method he found assistance in the traditional scholastic methods. Descartes was original in insisting upon finding the existence of an absolute and undeniable principle before any progress could be made. Such an absolute

principle can be obtained only by an *inductive sifting of all ideas*. From this all further truths must be obtained by *deduction*. Every true philosophy must therefore be an induction or analysis of ideas, and secondly, a deduction or synthesis. *The great contribution of Descartes was therefore this: to the inductive method of Bacon and the deductive method of Galileo, he added an absolute principle which must be taken as the basis of both induction and deduction.**

Induction — Provisional Doubt — The Ultimate Certainty of Consciousness. The philosophical proclamation of Descartes was characteristically French, for he demanded the same return to an uncorrupted nature for the understanding that Rousseau many years later demanded for the heart. The first step of Descartes was also French in its demand for absolute clearness, which from his youth had shown him to be so passionately fond of mathematics. The way to such clearness is through provisional doubt. Let us purify the understanding by delivering it of the rubbish of traditional opinions, taken upon the say-so of others. By this negative induction of received knowledge, let us see if there is anything positive and certain. In Descartes's *Meditations*, in "a dramatic dialogue with himself," he portrays his own intellectual struggle to gain uncontaminated truth.

* Read Descartes, *Method, Meditations*, for the dramatic struggle of his inner life; Falckenberg, *Hist. Modern Phil.*, pp. 86-88; Fischer, *Descartes and his School*, p. 199; Blackwood Classics, *Descartes*, pp. 144-149; Windelband, *Hist. Phil.*, pp. 389 ff.; Höffding, *Hist. Modern Phil.*, pp. 219 ff.; Weber, *Hist. Phil.*, pp. 306 ff., for an opposing opinion about the place of Descartes.

He makes an induction of all kinds of knowledge and challenges each as it appears. Nothing is to be accepted as true until it has proved itself true. All facts are subjected to rigid scrutiny. Descartes doubts the testimony of the senses, the existence of the material world, the existence of God. But this induction is provisional, even if it is radical. While none of the usually accepted truths are found by him to be undeniable and absolute, yet Descartes has an ulterior purpose in challenging them. Greek skepticism had no further end than doubt, while at the other extreme Anselm and the orthodox scholastics had refused to doubt at all. The method of Descartes is contrasted both with that of Anselm and with that of the Sceptics, for he doubts in order that he may know. *Dubito ut intelligam*. Doubt is necessary, but only as a means to an end; and that end is knowledge. Descartes proclaimed for the modern individual the privilege and the duty of rationalizing his own beliefs.

In such an inductive sifting of traditional beliefs, are there any that can be called knowledge? Is there one whose reliability cannot be successfully doubted? Not a single one, except the thinking process itself. I am certain that I am conscious. Even when in my universal doubt I say that nothing is certain, I am at least certain that I doubt. I am, therefore, contradicting my universal skepticism. To doubt is to think; in doubting, consciousness is asserting its existence. Skepticism is self-contradictory. An induction of our ideas reveals at least this one absolutely certain principle: I, as thinking, am. *Cogito ergo sum*. My own existence is an intuitive truth that accompanies every state of mind. This is the best known portion of Descartes's philoso-

phy, and perhaps it is in part to the Latin formula of it that it owes its widespread acceptance. It is criticised as trifling, even if it be true; and as reasoning in a circle. Yet it must be remembered that Descartes does not intend the *ergo sum* ("therefore I am") to be a conclusion of a syllogism of which *Cogito* ("I think") is the minor premise. This formula is not an inference, but an intuition, which is revealed by induction as the certain background of all knowledge.

Three things are to be learned from this fundamental principle, said Descartes: (1) The first is that man has gained a criterion of truth. The characteristic of this principle that makes it reliable and certain is its clearness and distinctness. *Clearness and distinctness of ideas is the proof of their truth.* All true ideas will therefore have the mathematical and intuitive certainty that the idea of the existence of the self has. (2) The second lesson from this fundamental principle is that the existence of the soul is more certain than that of the body. The soul is more important and independent than the body. This is the subjective point of view of modern times. The modern man views the world as the representation or the creation of his thinking soul. (3) The third lesson from this principle concerns the nature of the soul. How long do you exist? As long as you think. (*Sum cogitans.*) True existence is rational thinking, and God alone has it. Feelings and passions are obscure ideas.

Deduction — The Implications of Consciousness. For Descartes reality lies within the Self; and the next question before him is how to get out of the Self. Knowledge that is confined to the Self and its states is called, technically, solipsism. Such knowledge amounts

to little ; indeed, it is not knowledge at all. Certainty of self-existence is the minimum amount of knowledge — merely the starting point of knowledge. Descartes proposes to escape from this solipsism by the use of logic. His method from this point on is ostensibly deductive, although he introduces by the side door other ideas than the idea of Self to make his proof complete. Descartes maintains that any idea will be as true as the consciousness that accompanies it, just as a proposition in geometry partakes of the truth of the axioms from which it is derived. Now my consciousness contains many ideas ; some of them seem to be the product of my imagination ; some seem to be adventitious ; some are innate. It is upon the innate ideas that Descartes depends to get him out of his solipsism, for they are not created by the Self and they have the qualities of truth—a conscious clearness and distinctness. Among these innate ideas is the idea of God as a perfect being.

The Existence of God.* As a deduction from consciousness, the idea of God would prove to be a very useful one to Descartes, provided it had reality. For it is evident that consciousness can testify only to the existence of itself and its own states. How do I know the reality of anything else ? Am I confined within the circle of my own thinking ? Is all that I can say of this or that, “It is real to me” ? Are all things only the phantasmagoria of my own brain, testifying only to the existence of myself ? Descartes thought that the idea

* Read Falckenberg, *Hist. of Modern Phil.*, pp. 92–94 ; Blackwood’s Classics, *Descartes*, pp. 151–153 ; Weber, *Hist. of Phil.*, p. 310 ; Calkins, *Persistent Problems in Philosophy*, pp. 25–30 ; Turner, *Hist. of Phil.*, pp. 451 f., which presents Descartes’ arguments as reduced to two.

of God relieved him of this solipsism. If he could demonstrate God's existence, he would then be able to demonstrate the existence of the material universe. The problem was so highly important to Descartes that he threw it into several different arguments. The complications with which these arguments are filled must be passed over here, and the arguments stated in their simplest forms.

(a) Two are ontological arguments, that is, arguments from the character of the conception of God's nature.

(1) *A Simple Deduction.* If I have in my consciousness any idea as clear and distinct as my idea of Myself, it must have existence like Myself. My idea of God has just that clearness and distinctness ; and therefore God exists.

(2) *The Geometrical Argument*, so called by Descartes. Some ideas have properties so immutable that, when we think the ideas, we necessarily think their properties. Such is the idea of a triangle ; when I think of a triangle, I must think of it as having its three angles equal to two right angles. Such is also my idea of God ; I must think of him as perfect and existing. He would not be God, *i. e.* a perfect Being, if He did not exist.

The reader will recognize this as a re-statement of the argument by St. Anselm. As such it raised a tempest of controversy in Descartes' time, and was attacked from all sides.

(b) Two are causal arguments, that is, based on the assumption of the equality of cause and effect. Only one of these arguments will be cited here. This is known as

The Cartesian Argument. I have an idea of a per-

fect Being. This idea must have an adequate cause. Therefore God must exist, for only He, and no imperfect being, can be the adequate cause of my idea of perfection.

The ontological arguments given by Descartes are evidently deductions from the certainty of self-consciousness. The question which we immediately raise concerning them is, Are they true? As to the causal arguments, Descartes is breaking away from his original assumption, viz., that self-consciousness is the only certainty, and is introducing another assumption, viz., the certainty of the law of cause. The question, then, that the thoughtful student asks, is, Does Descartes really escape from his solipsism?

The Reality of Matter. It will be seen that Descartes is trying to deduce from the certainty of the idea of self-consciousness the certainty of other ideas, as propositions are deduced in geometry from axioms. The existence of God is an implication of human consciousness. Now Descartes points out that the existence of matter is implied in the existence of God. Descartes is interested in material science, and it is important for him to prove the reality of matter. Here again his scholastic training comes into play. Since God has all the attributes of a perfect being, He must be veracious. If there were no God, but only a deceiving Devil, the external world might be only a fiction, created to deceive us. But God exists, and we can trust that He would not continually deceive men about the existence of nature. An atheist could have no science, but to Descartes,

"God's in His heaven —
All's right with the world."

Of course, man is constantly in error about the character of physical things, but these errors arise from his misinterpretation of them. Nature in some form lies before man, or else God in His truthfulness does not exist. The essence of matter is extension (see below), and whatever my interpretation of it, something extended lies before me to be interpreted.

This is the skeleton upon which Descartes constructs his theory. Even this cursory examination of it shows the obvious attempt to explain "the world of grace" by the method of mathematics, and it is quite consistent with the spirit of the Renaissance. The existence of God and the existence of matter are deduced in turn from the axiom of all thought, the Self; while matter is further described as the extended or the measurable. Thus Descartes has tried to construct a bridge between the scholastic concepts and the science of the Renaissance. The three realities, the Self, God, and matter, which Descartes often speaks of as intuitively certain, have obviously a differing cogency. The reality of consciousness is the ground from which the other two are derived. In asserting its primacy, he is voicing the spirit of the Renaissance even more clearly than did Galileo and Bacon. For Descartes in this has gone back of the objective facts to a single subjective principle; whereas the deductive principles of Galileo were objective. In this respect Descartes is the founder of the subjective method of modern thought, and in identifying the Self as the reason he became the founder of rationalism. In any case he established a background for epistemology, or the theory of knowledge. But in his derivation of the other two realities — God and matter — he shows how persistent was the scholastic current in his thought.

Although he declared them to be intuitively known, they evidently are not so in the same sense that self-consciousness is ; and he felt obliged to support them by traditional scholastic arguments.

God and the World. Leaving these fundamental principles of Descartes, we now come to a consideration of a few of the details of his philosophy. Descartes' world is a dualism in which conscious being stands in contrast with space objects. God is related to the world of mind on the one hand and to the world of matter on the other. The order in which Descartes came upon the three substances — the Self, God, and matter — is, however, not the order of their reality. In reality God is the *primary substance*, for He depends only upon Himself. Matter and the Self are *relative or created substances*, for they depend upon God. Matter and mind have different modes of appearing: the modes of matter are form, size, position, and motion. The modes of mind are ideas, judgments, and will. Thus mind is so essentially different from matter, as can be seen in their respective modes, that God stands in a different relation to each.

The Relation of God to Matter. Descartes here investigates the realm in which he has the deepest interest ; but he makes a concession at the very beginning. He divests things of their qualities and finds the essence of matter to be extension. Qualities are not resident in things, but are the result of our sensations. Sense-perception is knowledge of qualities, and therefore obscure knowledge ; while clear or intellectual knowledge is of quantities. But there is one quality common to matter, — extension. Space, extension, and matter are the same. There is no space that is empty, no

matter that is not extended. An extended or material body has, however, in itself no principle of motion. It cannot move itself. It must be moved by an external cause, and the whole universe must be a mechanism whose movements have their first cause in God. Matter in its modes of motion and rest has God as its first cause or unmoved mover; and under matter is included everything extended, — inanimate objects, the lower animals, and the bodies of men. To this world of matter God stands in the relation of an inventor to his machine.

The Relation of God to Minds. The essential nature of minds is thought. Mind is therefore different from matter because it is unextended and free. The two relative substances have nothing in common except that they are related to God. The relation of God to minds is, however, very different from His relation to matter. God is not the unmoved mover of minds, but He is the perfect and infinite mind to which our finite minds turn as their ideal. God thinks and wills perfectly what we think and will imperfectly. He is not the mechanical but the teleological cause of minds, their *ens perfectissimum*, the goal of all mental aspiration.

The Relation of Mind and Body. In proportion as Descartes clearly defined mind and body, and referred each back to its own principle, the impossibility of connecting the two became apparent. Descartes intended that his theory should, above everything else, clear philosophy of all obscurities. So he divided the world into two relative substances, — mind and matter, — each operating in its own realm, each exclusive of the other. The intention of Descartes is to be a consistent dualist. But there was one point where, with one eye on the church, he had to qualify for ethical considerations his

scientific principle of matter. That is the point where the human body acts upon the soul and the soul acts upon the body.

There was little trouble for Descartes in conceiving the movements of inanimate bodies, plants, and all the lower animals as purely mechanical and automatic, with their first cause in God. From his own investigations he felt obliged to regard many of the human functions as automatic also. But his ethical and theological interests compelled him to think of man as exalted above the rest of creation. Theology has always been in a sense aristocratic, and has drawn a line between man and other things. Man alone has a soul in his body. The soul of man is immortal and free, and must therefore have control over the body ; nevertheless the soul of man must be conscious of the impressions that come through the body. Here the science of the Renaissance and the scholasticism of the Middle Ages refuse to be reconciled in the philosophy of Descartes. When it became a question between Descartes' scientific theory of matter operating itself mechanically and the church doctrine of a spiritual will operating the matter of the human body, the scientific theory had to yield. How does Descartes yield gracefully to the theological requirements and bring together the two unlike worlds of matter and mind in the human personality ?

Descartes' explanation of the relation of human mind and body reminds us of the mythical explanations of Paracelsus. The soul is united to all parts of the body, but its point of contact with the body is the pineal gland, and this contact is made possible through the animal spirits (*spiritus animales*) or the fire atoms in the blood, a revived Greek conception. The pineal gland

is a ganglion in the centre of the brain, which biologists tell us is a defunct eye, but which Descartes conceived to be the seat of the soul. Descartes maintained that the animal spirits, having been distilled by the heart, ascend by mechanical laws from the heart to the brain, and then descend to the nerves and muscles. When they pass through the pineal gland, they come in contact with the soul. The soul exercises influence on the body by slightly moving the gland and diverting the animal spirits. In this way the emotions and sensations are to be explained. The movement of the pineal gland by the animal spirits causes sensations in the soul; the movement of the gland by the soul changes the movement of the animal spirits, and is an exhibition of free action. But this does not add to or subtract from the energy. It merely changes the direction of energy.

The Influence of Descartes. Although the philosophy of Descartes was forbidden in the University of Oxford, was proscribed by the Calvinists in Holland, and his works were placed upon the Index by the Catholics, it created a profound impression on the theology, science, and literature of the seventeenth century. It spread over Europe in a somewhat similar way to the Darwinian evolution theory in modern times. Its success was immense, many standard men rallied to its support, and everything before Descartes was considered to be antiquated. Among philosophers his doctrine had an internal development in a natural way along the lines of the problems which he had left unsolved. A philosophical development, the source of which can be traced directly back to Descartes, went on until Kant published his *Critique* in 1781. This has later been called the School of Rationalism in Germany, France, and Holland. The

most important members of this school — the Occasionalists, Spinoza, Leibnitz, and Wolff — we shall consider in their place. Descartes had an important immediate following in the group, who go by the name of Occasionalists ; but his most important successor, who can hardly be called his disciple, was Spinoza.

Descartes' method had a peculiar fate. His followers misunderstood it, exactly reversed it, and obtained very fruitful results. Descartes himself had hoped to see induction employed in most metaphysical problems. He regarded deduction as of use only in proceeding from one self-evident fact to another. But the following Rationalists used the deductive method entirely and tried to systematize ethics after the manner of Euclid. They deduced their systems from some assumed principle. This tendency was first seen in the Port Royal logic, and was completed by Spinoza.

The Relation of the Occasionalists and Spinoza to Descartes. The development of the doctrines of the Occasionalists and Spinoza from Descartes was an attempt to make clear the conception of *substance*. Since substance was the most important scholastic category, it is easy to see why Spinoza's teaching became thoroughly scholastic. Descartes had used the term "substance" in a very loose way to apply to God as infinite, and to minds and bodies as finite. He speaks of God as the only substance, and yet of consciousness and bodies as created substances. Such ambiguity must be overcome, if a philosophy which prided itself on making everything "clear and distinct" was to stand. Descartes had fallen short of justifying his attempt to put metaphysics completely upon a mathematical basis, although this had been his original problem. The obscurity of the spiritual

world still remained, because Descartes had left the concept of the spiritual substance undefined. The world of the spirit was still an unknown country. The spiritual substance had not been made clear and distinct, and there still remained the ontological problem of the relation between mind and matter, and the psychological problem of the relation between the individual soul and its body.

Descartes had, however, defined clearly the concept of the substance of matter — the substance with which the natural scientist works. He had accomplished this, to be sure, by destroying the essential distinctions between material things. A “thing” is essentially a substance in which many qualities inhere, *e. g.* a piece of sugar having whiteness, sweetness, etc. Material substances were alike in that all were essentially extension. All else besides extension in any particular finite thing was a modification of extension. A lump of sugar was essentially the same as a lump of salt in that both were extension; the saltiness, sweetness, etc., were secondary. Now this makes the nature of bodies very clear; and Descartes proposed to reduce the substance of the states of mind to the same clearness, but he did not do it. He was interested in natural science and he developed his rationalism only with reference to matter. Bodies are parts of space or corpuscles, which are mathematically infinitely divisible, but perceptually are not further divisible. As far as he went, Descartes was clear enough.

The Occasionalists and Spinoza represent the second stage in the development of Rationalism. Both tried by making clear the meaning of spiritual substance to define the relationship of God to the material world. Both tried to state the problem in other words, to over-

come the dualism between mind and matter, and to reconstruct the old "world of grace" so that it would be consistent with the new world of science. The Occasionalists, whose chief exponents were Malebranche and Geulinx, we shall dismiss with only a few words, while considerable attention must be given to the teaching of Spinoza. Malebranche tried to do for the mental world what Descartes had done for the world of matter. Since no knowledge is possible except in God, he claimed that the modes of finite minds—our ideas, judgments, imaginations—are alike in essence in being modifications of the universal reason of God. God is so far the "place of minds" as space is the place of bodies. All our ideas participate in God's reason, and all our volitions are the modifications of the will of the Divine, just as bodies are modifications of extension. What then is the relation, asked Geulinx, between bodily movement and the states of consciousness? Why does my arm move when I wish to move it? By the mediatory power of God. The thought in my mind is the "occasional cause" of the movement of my arm, while God is the true cause of the movement. The movement of the human body is therefore, like the movement of all matter, a continuous miracle caused by an ever watchful Deity, who keeps body and mind in harmony. Spinoza completed his pantheism before Malebranche had prepared the way. He formulated a complete doctrine of substance, conceiving material bodies to be essentially the same in being modes of extension, and mental phenomena to be essentially alike in being modes of thought. But more important was his further teaching that on that account the two series have no relation to each other. That is to say, Spinoza reduced the

whole difficulty to clearness and distinctness by reducing the three substances of Descartes to one. For this reason Spinoza was a more complete Rationalist than Descartes; and he was assisted in this construction of a mathematical Rationalism by two facts: he held himself strictly to the deductive method, and he was free from social and ecclesiastical ties. Spinoza is the truest utterance of his time in its effort to make all things clear; and this is not contradicted by the fact that he had little influence in shaping contemporary thought.

The Historical Place of Spinoza.* Spinoza did not get full standing nor was he widely read, until Lessing, one hundred years later, resurrected his teaching and Goethe adopted it. He produced what the Renaissance was striving for, but what the Renaissance could not yet grasp, — the complete logical formulation of its deepest thought. Spinoza produced the only great conception of the world during this period, and it excited the hostility of contemporary Catholics, Protestants, and free-thinkers alike. The product of his thinking was a new systematic scholasticism, which, if the time had been ready for it, would have entirely superseded the mediæval. He succeeded in placing metaphysics upon a scientific and mathematical basis, for his philosophy was not only logical in its content but mathematical in its form. Spinoza's philosophy is the Renaissance expression of mediæval scholasticism, — the expression of that rationalism that underlies both the

* Read Royce, *Spirit of Modern Phil.*, chap. iii; Baldwin, *Fragments in Philosophy*, pp. 24-42; Rand, *Modern Classical Philosophers*, pp. 148-166; Eucken, *Problem of Human Life*, pp. 362-380.



BARUCH DE SPINOZA

(Pollock (*Spinoza, His Life and Philosophy*, p. xxvi) says that only three of the portraits of Spinoza may reasonably be considered authentic. One is a miniature of the philosopher in the Summer Palace at the Hague; the second is a painting in the Town Museum at the Hague; the third is the one given here, which is an engraving found in copies of the original edition of Spinoza's Posthumous Works (1677). This portrait seems to be somewhat idealized, but of the three it is the most artistic and lifelike.)

thought of the Middle Ages and the Renaissance. It is as if Thomas Aquinas had been transported into the Renaissance, and finding that science would not support and explain dogma, had conformed dogma systematically to the new science. Mathematically science was the new dogma. Spinoza is the last word of mediævalism, although his language is the science of the Renaissance. The utterance of Spinoza sounds strange because, while his thought is mediæval, his expression and form are scientific.

Spinozism had a revival in the eighteenth century.* It formed the background of the philosophy of Herder and that of the author of the *Wolffenbüttel Fragments*. The connection of Lessing and Spinoza was a matter of active controversy at that time. Spinoza was the great influence upon Goethe. In the nineteenth century in England Coleridge reproduced from Spinoza's *Ethics* the doctrine of an all-pervading love and reason.

Spinoza strove before everything else for a unitary system, and yet it is interesting to see how much he has been honored from different quarters. Artists, religious devotees, poets, idealists, materialists, and scientists have found in him their truest expression. This is not only because each has found something different, but because his philosophy had actually a many-sided character. His teaching had the advantage of being thoroughly radical. Bad systems of philosophy are impossible, because they are contradictory. While no one knows that any system corresponds to fact, still it is possible that a radical system may have such correspond-

* See page 279. Read Goethe, *Geheimnisse*, in this connection.

ence. Spinoza's system is comprehensive, and therefore has struck sympathetic chords in differing thinkers.

The Influences upon Spinoza. 1. His Jewish Training. Spinoza was born a Jew and remained a member of the Synagogue until he was excommunicated at the age of twenty-four. Although he was the original genius who transcends his limitations, his young mind was moulded after the Jewish type. He received the strictly religious training of the Jewish boy in the Jewish academy at Amsterdam, where he learned a trade in connection with his studies. He studied the Talmud, mediæval Jewish philosophy, especially the writings of Maimonides (twelfth century), and the Cabalistic literature. In a Jewish curriculum the classical languages had no place; and mathematics, except arithmetic, was generally overlooked. His early instruction emphasized above everything else the unity and the supremely transcendent, theistic character of God.

However, his separation from the Synagogue at this early age could not but modify his theology. It made him a free Jew. He was no longer under the restraints of Jewish traditions. While he never abandoned his belief in God as a unity, he gave up his belief in the transcendent theistic God of the Hebrew prophets; and he differed from the contemporary Jewish Cabalistic teaching of emanations from God. He seems to have so modified the orthodox Hebrew conception of God that it rather resembles that of the mediæval mystic Christian. Perhaps the influence of Bruno upon his thought may account for its final shape.

2. His Impulse from the New Science — Descartes' Influence. The "free thinking" for which Spinoza was excommunicated by the Synagogue was obtained first

from his instruction in the school of Van der Ende, a physician of daring naturalistic tendencies. This was when he was eighteen. Spinoza had already learned Italian and French ; Spanish, Portuguese, Dutch, and Hebrew were his native tongues ; Van der Ende taught him German and Latin, and introduced him to the science of the time. It was then that he read Descartes, whose philosophy he made the basis of his own. Spinoza was not an inventive genius like Descartes and Leibnitz, but he was more rigidly systematic than either. He was by nature a thinker who was obliged to carry his thought through to its logical conclusions. He had already, at this early age of eighteen, begun to make independent theological excursions. Consequently the mathematical methods of Descartes furnished him a method, and Van der Ende gave him the encouragement for carrying out his independent thinking unrelentingly to its logical end. To state his modified Jewish conception of God in mathematical terms became his task, and his success in thus stating it, with Descartes as a starting point, made him the most complete representative of Rationalism.

3. **His Acquaintance with the Collegiants.** After his expulsion from his kindred, he lived for seven years with a sect of Baptist Quakers called Collegiants. This was a dissenting religious body without priests or set forms of worship. The members were simple, pious people, who regarded moral living as superior to creed ; and Spinoza's life in their midst must have determined to some degree the lines of his thought. To a man of Spinoza's simplicity of mind and kindly disposition, the Collegiants would prove to be not only congenial companions in his hours of distress, but they would confirm

his own love for the ethical as an ideal. Spinoza says that the motive of his philosophy is a practical one; that he is seeking that which would "enable me to enjoy continuous and supreme and unending happiness." He is seeking a theory of life that would aid in allaying the unrest of his time; and he is the only philosopher who has called his metaphysics *Ethics*. The humanness of his doctrine, the practical purpose of his writings, and the ethical ideal that informed his whole life had at least their reinforcement, and perhaps their origin, in his contact with the Collegiants during this critical period. His life with this sect influenced him in his refusal to accept the chair of philosophy at the University of Heidelberg, and to remain content to be the obscure grinder of optical lenses.

The Life and Philosophical Writings of Spinoza * (1632-1677). The history of philosophy presents in the person of Spinoza a lovable, interesting, and striking character, as well as the author of one of the profoundest of philosophical systems. His life was one of social isolation and retirement rather than of solitude. The Jews to whom he belonged lived a kind of double exile — they were exiled from their home in Spain, and they lived by themselves apart from the people of Amsterdam. When Spinoza was excommunicated by his brethren, he suffered, therefore, a threefold exile. Moreover, Spinoza was not only excommunicated by his people, but he was hated by the contemporary Catholics, Protestants, and the prevailing Cartesian school. Even the free-thinker, Hume, spoke of him as "the infamous Spinoza," and another philosopher described his philosophy as "the hideous hypothesis of Spinoza." But his isolation was

* Read Auerbach, *Spinoza*, an historical romance.

far from solitude, and he had many eminent and faithful friends and a notable correspondence. Of his short life of forty-five years, he spent twenty-four, or more than half, as a member of the Jewish synagogue. During the next seven years he found refuge among the Collegiants. In the last fourteen years of his life he became widely known, mainly through the *Theological-Political Tract*, published in 1670, the only one of his writings which he himself published. This brought him the call to the University of Heidelberg, which he declined. His life may be conveniently divided into three periods, as follows:—

1. *In Israel* (1632–1656). Spinoza was educated at the Jewish academy at Amsterdam, where he studied theology and learned a trade, according to the Jewish custom. This trade was the grinding of optical lenses; that is, he became an optician, and this required some knowledge of mathematics and physics. During these years he got instruction from Van der Ende in science and Latin. He also read Descartes and learned many languages. He wrote a compendium of a Hebrew Grammar, of which the date is doubtful. In 1656 he was excommunicated by the synagogue. The charges brought against him were that: (1) he denied that the Old Testament taught the doctrine of immortality; (2) he affirmed that angels may be only phantoms or ideas in men's minds; (3) he affirmed that God may have a body.

2. *In Retirement* (1656–1663). Spinoza spent this time with the Collegiants, and this was his most fruitful intellectual period. He brought his ontology, ethics, politics, and physics into a unified system; and he formulated his theory of determinism and his mathematical

method. In 1658–1661 he was writing his so-called *Short Treatise*, “concerning God, man and his well-being.” This was the first draft of his *Ethics*. In 1656–1662 he was writing his *Improvement of the Understanding*. In 1662–1663 he wrote a summary of the principles of Descartes.

3. *In the Public Eye* (1663–1677). During this period Spinoza lived at or near the Hague, where he had many visitors and a large correspondence.* He was an intimate friend of the brothers DeWitte, who made so large a part of the political history of the country. In 1662–1665 he was writing his *Ethics*, his monumental work. In 1663–1670 he wrote and published the *Theological-Political Treatise*, the only work published during his life. Although received with horror, it was widely read. It aimed to show that the *Bible* is history. In 1673 he declined the call to the University of Heidelberg. Just before his death, in 1677, he wrote the fragment of the *Political Treatise*.

The Method of Spinoza. The method which Spinoza employed in writing his *Ethics* must not be regarded by the reader as a fantastic dress that he capriciously chose. It had for Spinoza a real and not merely an external significance. On taking up the book, one finds philosophy treated exactly as Euclid treated his geometry. Beginning with a number of definitions and axioms, there are deduced, step by step, propositions with appended scholia and corollaries. To Spinoza this was not pressing philosophy into an artificial and rigid form, but was only the natural mode of philosophical expression. For, in the first place, if the new method of science had proved

* Read Bohn's *Literatures*, *Spinoza*, vol. ii. pp. 275 ff., for Spinoza's interesting correspondence with notable men.

itself successful in treating physical phenomena, why should not the same method have the same success with problems of the world of the spirit — and in this way bring the two worlds into harmony? By deduction one could then arrive at absolute certainty and unassailable proof of the solutions of metaphysical problems that had long vexed the Middle Ages. With the perfect geometrical method all problems in heaven and earth could be solved. In the second place, the religious conviction of Spinoza that all things come from God required the deductive method to explain them. The order in which we should study phenomena should correspond to the real order in which they stand to God. God is the ground or reason of things, and all are derived from Him as consequents. The deduction of the relation of finite things to God will correspond to the real relation in which God stands to them.

The Fundamental Principle in Spinoza's Philosophy. The philosophy of Spinoza seems to be Cartesian in every respect except one; and that one difference was like the leaven in the lump — it transformed his philosophy into a radically different one from that of Descartes. Spinoza's point of departure was the philosophy of Descartes, all his presuppositions are the fundamental principles of Descartes, and the structure of his system seems to be that of Descartes. He has the same respect for the power of the reason to know all truth, the same faith in the omnipotence of the mathematical method, the same general conception of substance, the same idea of the qualitative difference between the worlds of thought and extension, the same belief in the mechanical structure of the world of nature. He made these his own and accentuated them. But he

added to these a new and transforming principle: he conceived that the substance, God, is not merely one object of knowledge, but *He is the only object of knowledge*. He is the only substance, and finite things are only modifications of Him. Finite things are alike at bottom, and to know them truly is to know God.

This new principle transforms all the Cartesian elements in Spinoza's teaching. It changes the Cartesian theism into a pantheism; it supplants Descartes' theological orthodoxy with a naturalism and Descartes' doctrine of freedom with a determinism; and it turns the cultured aloofness of Descartes into a benevolent mysticism. This new principle becomes "the head of the corner." The oneness and universality of God is the single proposition from which Spinoza deduced his whole philosophy. God is the ultimate ground whose existence must be real, because it is conceived. The intrinsic scholasticism of the philosophy of Spinoza appears in his definition of substance, for it is only a condensed statement of St. Anselm's argument for the existence of God. Spinoza says, "By substance I mean that which is in itself and conceived through itself alone." There are, therefore, two kinds of things: the thing that has existence in itself and the things that have existence in something else. God stands alone in the first class; all other things make up the second class. Spinoza's world is divided into two parts: God and the modes of God. God is self-explanatory and self-existent, while everything else is explained through Him. The only object of knowledge and the single presupposition of existence is God. In a phrase that has become classic, Novalis described Spinoza as a "God-intoxicated man."

Three Central Problems in Spinoza's Teaching. We have already noted that Spinoza was the chief exponent of "clearness and distinctness" in this epoch when all mysteries were to be revealed. He sought to articulate a metaphysics that would spread out the plan of the world like a demonstration in geometry. His definition of substance is perfectly intelligible; he accepted the mathematical analysis of the material world into a world of extension, and that of the world of conscious states into one of thought—all this for the sake of simplification and clearness. How simple such a philosophy at the first blush appears—the world is God and his modifications. As a matter of fact it is one of the many examples of the irony of history that the philosophy of Spinoza is one of the most difficult to interpret. Its difficulties do not arise from its having a novel point of view, for on the contrary it is one that appeals strongly to the popular imagination. Its difficulties arise from its very simplicity, for, after all, human life is so rich and varied that a simple formula will hardly express it. From beginning to end Spinoza's thought has a vagueness for which the beginner in vain strives to find the cause. The cause lies in the seemingly simple principle that God is all that really exists, and yet the world consists of God and other things.

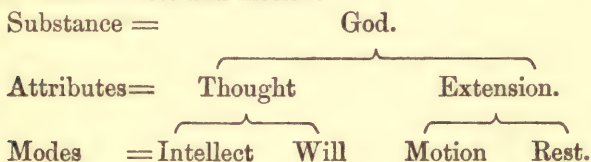
From Spinoza's effort to simplify matters emerged three central problems: (1) The problem of the all-inclusiveness of God—the problem of pantheism; (2) The problem of the unity of God—the problem of mysticism; (3) The problem of the salvation of man—an ethical problem. We shall now consider these problems in order.

The Pantheism of Spinoza — The All-Inclusiveness of God. That Spinoza's philosophy is a pantheism appears at the outset in his conception of substance; for the substance is all that really is. Descartes had conceived of three substances, — God as the absolute substance, and mind and matter as the two relative substances. But to Spinoza there can be only one substance; for if there were two or more, no one would be substance, since each would be conceived through the others. If we think at all, we must think of substance as all-inclusive. One might suppose that this preliminary statement would be all that Spinoza could say about life: all that really is, is substance; other things do not exist. But that would be a misinterpretation of Spinoza. He does not mean that finite things are mere nothings. They exist as unrealities; they exist as negations of the substance. If you prick into the finite world, it does not collapse, like a balloon. It still exists as an unreality.

No person ever had the idea of infinity so profoundly as did Spinoza. His idea of infinity is not merely that of the infinity of time and space, which indeed affords a tremendous variety of possible constructions, since space and time are each infinite. To Spinoza the infinity of the substance is much more than these possible combinations of time and space, for corresponding to the time and space series is a series of mental states. Every event has a reason. Every one of the infinity of events in the world of extension is paralleled by some state of thought. But this is by no means the whole story about Spinoza's conception of infinity. Besides the infinite world of time and space and the infinite world of corresponding thought, the substance to

Spinoza possesses an infinity of other attributes, each of which is infinite. Spinoza piles up infinities upon infinities, and thus conceives the substance as an infinity in an overwhelming sense. Only two of the infinite modes appear to our limited human discernment: the infinity of the mode of extension, and the infinity of the mode of thought.

Spinoza begins at once to tell us about the forms in which the all-inclusive God appears to us. First, the substance has two attributes, thought and extension. An attribute is "that which the intellect perceives as constituting the essence of the substance." Each attribute in its turn manifests itself in modes: thought appears in the modes of intellect and will, extension in the modes of rest and motion.



This bare skeleton of our rich and varied world appears very much the same as that which one might find beneath Descartes' philosophy. However, Spinoza's conception of substance transforms it into a framework of a very different kind of philosophy. Since God is the inclusive reality of it all, we have here a pantheism instead of a dualism. The antithesis which in Descartes' philosophy was between extension and thought, now in Spinoza's teaching is between God and other things.

What is the place of the attributes and modes in the all-embracing and real substance? As to the attributes, Spinoza maintained that we, as finite beings, do not

know God in His character as substance, but that He always appears to us through His attributes of thought and extension. There are only these two attributes that the human mind can know, although God as an infinite being must possess an infinite number of such attributes. In our human world all things are either thought-things or extension-things. Each of these two attributes is infinite after its kind. Each fully expresses an aspect of God without depreciating the value of the other. Each is fully adequate, just as a table may be both white and hard without either quality infringing upon the other. The attributes are the substance made more concrete. The modes are in turn modifications of the attributes and more concrete expressions of them and of the substance. Each mode is infinite after its kind. Since God exists only in reality, He would not supposably see from His point of view the world laid out in attributes and modes ; for these are only human ways of interpreting Him. While the critics agree that the modes are human interpretations of the attributes and therefore unreal, they disagree about the relation of the attributes to God. Some maintain that the attributes are merely human ways of seeing the substance, analogously to the modes — as if we saw God now as thought and now as extension ; others maintain that God is nothing other than the sum of the attributes ; of extension, thought, and the unknown, infinite, other attributes. The difficulty lays bare the nerve of the problem of pantheism, and probably Spinoza was not clear in his own mind about the relation of the attributes to the substance.

Spinoza speaks more definitely upon this same problem of the relation of the modes to God. Is God the

sum-total of all existent things, or is He the principle behind them? Spinoza says that God is both. God is the cause of the world, not cause in the way that the term is commonly used nor in the sense that Descartes used it. God is not to existent things the first cause or the unmoved mover of matter, or the teleological cause of thought, as in Descartes. He is cause in the sense that a triangle is the cause of its own three sides. He is the rational ground (*ratio essendi*) or the logical reason for the being of things. In this sense God may be regarded as the cause *both* in the sense that He is the sum-total of existent things or modes (*natura naturata*), and in the sense that He is the immanent and energizing principle of existent things (*natura naturans*). These conceptions as well as their phrases Spinoza probably got from Bruno.

The world is, therefore, related to God in that it follows directly from the nature of God; God is related to the world in that He is the logical ground of the world. Is God the creator of the world? No, He is the world. Is God a person? Is He a self-conscious being like ourselves, — an individual? No. The thought-aspect of God includes our thought, but it is the very different infinite thought; the extension-aspect of God includes our body, but it is the very different infinite body. God has soul and body and an infinite number of other aspects. *God is* — an unchanging, self-dependent being, whose modifications are necessarily determined in their relation to Him and to one another. Spinoza conceived the character of God exactly from the nature of geometry. Just as all geometrical conclusions follow from the nature of space and exist in determined and fixed relations to one another, so every-

thing finite follows from the nature of the Infinite, and each finite thing is in a rigid chain of finite things of its own kind — a chain without beginning or end. The necessity of the divine nature appears in all, not as a series of emanations from God, but in a series, each member of which is determined equally by Him.

The Mysticism of Spinoza. *From the point of view of man*, mysticism in speculative or religious thought has reference to the immediate apprehension of God. Mysticism frequently accompanies pantheism, and *from the point of view of God* refers to the oneness of His all-inclusive nature. Spinoza's pantheism is also a mysticism which involves the immediate apprehension of the divine by the human; it involves the oneness of God and man. More often than otherwise mysticism is animated by a religious motive, and Spinoza's philosophy is profoundly religious. We have already seen similar mysticism in the Orphic-Pythagorean sect which formed so great a peril to Greek culture in the sixth century B. C., in the neo-Pythagoreans and neo-Platonists at the beginning of this era, in many of the churchmen of the Middle Ages, especially Scotus Erigena and Meister Eckhart. Bruno and many of the Humanists were mystics, and if we should wish to go outside our field, we should find mysticism to be the prevailing attitude of mind of the great Oriental peoples. Mysticism frequently is accompanied by belief in occult spiritual appearances, but that is not necessarily the case; nor was it the case with Spinoza. Spinoza's mysticism was purely intellectual. Although a religious philosophy with an immediate ethical bearing upon conduct, it was a scientific relationalism that could not tolerate the miraculous and the abnormal psychological

phenomena (such as clairvoyance, hallucinations, etc.). Spinoza is, on the contrary, distinguished as a mystic because he interpreted the universe in entirely non-human terms. His great service to mysticism lies in divesting the reality of life of every human attribution and laying bare a mathematical skeleton. The desire of the period to find a greater unity in life was responded to by him in a mathematical mysticism. To him the universe is not only divided into parts, not only is there no opposition between God and the world, but life is so completely a rational thing that no exceptional phenomena can occur. He believed that any description of God or of nature in anthropomorphic terms disunites life. Spinoza dehumanized the universe, conceiving matter to consist of elements, and conceiving spirit to consist of simple ideas. He resolved the personality of man into parts for the sake of the unity of the universe, and he obtained scientific clearness at the expense of humanity. Thus, instead of being able to say with Descartes, "I think and therefore I am," Spinoza could say, and wished only to say, "God thinks" (*Deus cogitat*).

Like the usual speculative mystic, Spinoza described his God in the terms of formal deductive logic. God is the most real being, *ens realissimum*. What is the most real being to a mystic? Would reality contain any finite quality such as the world around us contains? Can you say that God has this particular faculty, or is endowed with that concrete attribute? Does God enjoy, love, hate; does He create and destroy? But how can God be the real unity of the world unless He contains in Himself everything in the finite world? We approach here the threshold of *the problem of the concrete uni-*

versal, which has engaged the attention of so much of modern philosophy. A concrete universal is all-inclusive of finite existence, but at the same time is a self-consistent unity. In contrast with the concrete universal is the abstract universal, which is a unity, but outside of which all finite existence falls. While it was undoubtedly the concrete universal that Spinoza sought, his method could lead to nothing more concrete than the abstract universals of Plato and the Schoolmen. The world of finite things is included by Spinoza's God in the same way that blocks are included by a string which has been tied around them.

Spinoza's God is the most abstract entity which it is possible to conceive. All finite things fall outside Him. No quality can be predicated of Him, for to define Him is to limit Him. After the manner of the "negative theology" (see vol. i, p. 283), Spinoza refused to ascribe any quality to God. He does not feel, think, or will as we do, nor can extension be ascribed to Him in the sense of finite spaces. We can say only that He is not this and not this. Spinoza's conception of God is reached by dropping off all determinate qualities, until the most general and most abstract term is gained. The barrenness of this logical conception, its absolute emptiness and abstractness, makes all description of it impossible. God is a bloodless entity, an absolute logical necessity and the most abstract universal. Outside of Him falls all that we call life. If this is God's character, is He everything or nothing? If the process of abstraction rises so far above every limitation to an *ens realissimum et generalissimum*, — to the most real and most general entity, — if all content falls away from God, what does such an empty form amount to? The paradox in

Spinoza's philosophy appears here as in the case of all mysticism — for the mystic revels in paradoxes. This empty generality is all that really is. God is everything, and Spinoza points out empirical proof of this by insisting that the transitory life of man has its only meaning in such a substance. God is not this particular thing nor again that finite determination, but He is all these. He is the timeless reality of the temporal world, the infinity of finite things, the necessity of contingent nature. When therefore Spinoza speaks of God as having an intellectual love for Himself, and when he says that the attributes of thought and extension constitute the essence of the substance, he is not giving finite characteristics to God. He is struggling with language to express the inherent paradox of his philosophy.

Moreover, the delineation of the finite world with God as a background, as it appears from the point of view of a human being, is an inadequate presentation of Spinoza's profound conception of God. For the substance is not merely a neutral point nor the central point of the universe. The substance is all. All things have neither their explanation nor their existence in themselves. God alone has an existence that explains itself, and He is the reality and essence of all finite things. God is immanent in the world. Just as the sides of a triangle get their meaning from the triangle itself, so the significance of the attributes and modes of the substance lies in the substance.

The unity of Spinoza's God is further suggested by the relation of the attributes of thought and extension, however separate they must appear in their quality and causal dependence. Both are aspects of the same substance, in the one case in the form of extension, and

in the other in the form of thought. In the all-inclusive nature of God, presumably each moment has an infinite number of correlative moments corresponding to the infinite number of the attributes of God. Since to human beings only two of these worlds lie in sight, only two corresponding modes appear, but always two. This correspondence of the physical and psychical throughout nature is called in later times *panpsychism*; in the relation of the body and mind of a human being it is called *psycho-physical parallelism*. This correspondence helped Spinoza to solve the apparent dualism of the two worlds. While ideas are determined only by ideas, and motions by motions, both series point below to the divine substance which is the significance of both. They are like the top and bottom sides of a piece of paper, neither side constituting the piece of paper, but both being necessary to it. The substance is immanent in thought as well as in extension. Both thought and extension are aspects of God. The relation of thought and extension through the Deity discloses the monistic character of Spinoza's philosophy and seems to prove that he cannot be a materialist, although some critics have said that he is. The same reality is seen, now as consciousness and now as extension.

Spinoza's Doctrine of Salvation. Spinoza divided his *Ethics* into five parts. The first is a treatment of the nature of God; the second, of the nature and origin of the mind; the third, of the emotions; the fourth, of human bondage; the fifth, of human freedom. This most important writing of Spinoza, the only treatise on metaphysics which has been called *Ethics*, is a practical philosophy of life and redemption. The divisions of it, as they appear above, show that the philosophy of life

is looked at from two points of view: with reference to the nature of God, and with reference to the nature of man. We have above discussed the first point,—Spinoza's conception of God, whom he regards as pantheistic and mystic. But Spinoza's conception of the nature of the human being in relation to such a God is the other pole of this subject. The problem of life from the human point of view involves primarily the question of human freedom. Human freedom and human bondage are conditions that depend upon the human as well as the divine nature. By Spinoza's eliminating the human element from the nature of God, man himself has been reduced by Spinoza to an insignificant detail in a machine-like universe. Yet for man in his littleness Spinoza hews out a way to God in His greatness by his mystic reconstruction of the universe. Existence in Spinoza's pantheistic mysticism is, after all, a sphere of wonderful grandeur for man,—more wonderful and of wider utility than the existence which man is ordinarily supposed to possess. Since God is the reality of everything, man is deified; even the loss of man's essential humanity is the apotheosis of man.

Human salvation and freedom consist in being like God; bondage consists in being unlike Him, in mistaking the unreality of life for His reality. We are endowed with the ability of forming an adequate idea of God by means of our reason, but we are also endowed with the faculties of sensation, emotion, and imagination. The latter faculties make man a passive creature, for they bring him into dependence upon the things that act upon him and into bondage to them. We are passive when our activities are limited by such limited objects. While a passion seems to be the most active and turbulent

of our faculties, if we look at it more closely, we find that instead of being active ourselves during a passion, we are being acted upon by an external object. Only as we are purely rational, — only through the reason, — are we purely active. It is then that we are like God, free like Him, and then do we rise from insignificance to greatness. Then we transcend our false ideas of freedom and become necessary beings, for in God freedom is necessity.

To be free from the passions and the finite things of the world we must understand their nature: for to understand a thing is to be delivered from it. An illusion is not an illusion when we know it to be such. To see that all the passions, sensations, imaginations, and all the other modes of thought are human limitations, is to dwell within the reason. Spinoza's freedom is not, as will be seen, freedom in the ordinary psychological meaning of the term, but is the metaphysical freedom of being identical with the deity and determined by no finite thing. Freedom is rational knowledge. Nevertheless, freedom is ethical also, for it consists in overcoming the passions by reason. Freedom, therefore, has two sides: an escape from the emotions and an escape from obscure ideas — the goal in both cases being the life of reason. To attain freedom is to see the world as God sees it, which is the same as the reason sees it. This is to see each finite thing as eternal. Any concrete thing may be regarded by the human being as a finite and isolated thing out of all relation to other objects; or the same thing may be regarded as a detail of infinity. Looked at by itself, a thing is seen partially and falsely, for no finite thing has its explanation in itself. It is, however, seen truly when it is regarded, to

use Spinoza's own celebrated phrase, "under a certain form of eternity" (*sub specie aeternitatis*). This conception of eternity is one of the most admirable in Spinoza's teaching. When man rises through the reason to the consciousness of the eternity of the truth of a thing, the thing itself is transformed, and the man himself has gained salvation. Any circle that I may draw is imperfect, every leaf upon the forest trees is defective, all moral activities are wanting, if regarded in their time-limitations. But below all the imperfections of the universe is its absolute mathematical perfectness. There is nothing so abortive and evil that it does not have its aspect of eternity. Side by side with Spinoza's conception of infinity is his conception of eternity. Infinity is everlastingness, eternity is quality of being. Eternity has no reference to time. One minute may be eternal. The infinity of the substance is one aspect; the eternity of the substance is another. That eternity gained through the reason is salvation and immortality. God is reason, and by the act of the reason do we become one with Him. Our knowledge is, therefore, the measure of our morality. Knowledge and morality are the same; and whatever increases our understanding is morally good; whatever diminishes our understanding is morally wrong.

Nevertheless, from the point of view of the philosopher, there is nothing in the world that is morally good or bad, — nothing which merits his hatred, love, fear, contempt, or pity, — since all that occurs is necessary. The philosopher's knowledge of the determinism of the world lifts him above the usually conceived world of finite things to this mystic world, reconstructed by his intellectual love of nature or God. Love for God will

give to everything its proper value. It is the highest form of human activity. Love for God is an absolutely disinterested feeling, and is not therefore like human love, which is the passing from a less state to a greater. Love for God is peace, resignation, and contentment, for it is oneness with God. In fact, the love of man for God is the love of God for man; it is the love of God for Himself, since man cannot love God without becoming God. Thus man intellectually recognizes his oneness with God, and rejoices. Immortality is absorption in the eternal and necessary substance of the world. It is a common misconception that immortality is duration after death; immortality consists in looking at things under the aspect of eternity. The finite man perishes, but man's real self, which is God, survives.

Summary of Spinoza's Teaching. The rationalism of Spinoza is the final word of scholastic realism. It is a mathematical scholasticism in which the attempt is to make clear by the method of deduction all metaphysical problems. That the philosophical teaching of Spinoza is inspiring and ennobling, no one will gainsay. That his philosophy is not clear, is also true. In the beginning of his discussion, spirit is subordinated to nature; at the end, nature is subordinated to spirit. The result is that under the hands of Spinoza God has become a pure abstraction and without content, the world is an illusion, dualism is superseded by a monistic parallelism, individual activity gives way and becomes a pantheistic determinism. Yet amid all this a reconstructed world arises in which man is recompensed for all his losses by his participation in *infinity* and *eternity*.

Leibnitz * as the Finisher of the Renaissance and the Forerunner of the Enlightenment. Leibnitz is the last of the remarkable group of Rationalists of the Renaissance, who so fully represent the spirit of its Natural Science epoch. But Leibnitz also carries us into the next period of modern philosophy—the Enlightenment. He is the transition philosopher. If the reader will examine the dates of his life, he will observe that Leibnitz lived until twenty-five years after the Enlightenment was ushered in by Locke's *Essay on the Human Understanding* (1690). But as Leibnitz had already formed his own philosophy by the year 1686, even so versatile a mind as his could not then renounce the Rationalistic point of view for a new one. Some of his writings, such as his *Correspondence with Clark and Bayle*, his *Theodicy*, and his *New Essays*, show that he participated in the new movement of the next period. Yet the majority of his philosophical writings show him to be a Rationalist. Although he may be called the "father of the Enlightenment," the body of his thought belongs to the Renaissance. His main motive was that which animated all Rationalists — of stating theology in scientific terms. The immediate occasion for his doing this was the political necessity of peace among the religious bodies of Germany.

The effort of Leibnitz to restore the individual to his central place in the universe was a *secondary motive*. It nevertheless makes him the forerunner of the Enlightenment. Of the Rationalists, Leibnitz speaks for

* Read Rand, *Modern Classical Philosophers*, pp. 199–214; Eucken, *Problem of Human Life*, pp. 388–405; Weber, *History of Philosophy*, pp. 343–369; Hibben, *Phil. of Enlightenment*, pp. 161–193.

the future, just as Spinoza for the past. Leibnitz unites the Renaissance and the Enlightenment, just as Spinoza joins the Renaissance and the Middle Ages. Spinoza is the Rationalist who utters the final word of scholastic realism, while Leibnitz presages the coming individualism. Spinoza's philosophy is science buried in traditionalism; Leibnitz's is science breaking through traditionalism. Spinoza harks back to universals and particulars, substance and forms; Leibnitz points forward to vortex rings, energy, and dynamics. From Leibnitz's original purpose to rationalize theology, and to succeed where Descartes and Spinoza had failed, there emerges a new motive. He no longer lays the emphasis entirely upon the universal, but he shifts it in part to the particular. The pantheism of Spinoza had systematized the individual out of its reality. Leibnitz's conception of the individual as dynamic and his conception of the importance of the infinitesimal redeem the individual and bring Leibnitz into more modern times. To classify Leibnitz as a Rationalist is, therefore, not to describe him fully.

The Life and Writings of Leibnitz (1646-1716). Compared with Descartes and Spinoza, Leibnitz had a life that was long in time and rich in experience. Descartes died at 54 and Spinoza at 45, while Leibnitz lived to be 70. In striking contrast with Spinoza's career, there was no time in the life of Leibnitz after his graduation from the university that he was not in public service. He held the offices that would naturally go to the hanger-on of princes — some of them grandiose ones. While theoretically the interests of the three Rationalists were the same, Leibnitz differed from his predecessors in that his study of philosophical problems al-

ways grew out of some practical problem or political occasion. Leibnitz was not an academic thinker, and his "writings were called forth to estimate some recent book, to outline the system for the use of a friend, to meet some special difficulty, or to answer some definite criticism." Philosophy was only one of the interests of Leibnitz. He was jurist, historian, diplomat, mathematician, physical scientist, theologian, and philologist. Leibnitz was as much at home with the theories of Plato and Aristotle of ancient time, with those of St. Thomas and Duns Scotus of mediæval time, as with the science of Descartes and Galileo. He was precocious, had a prodigious memory and a reactive mind. In the wealth of his information and the productiveness of his genius, he stands with Aristotle as unequaled. Descartes, Spinoza, and Leibnitz belonged to the inner circle of scholars of the time, but Leibnitz was also in personal touch with political affairs and in intimate acquaintance with many of the important rulers. He was in the service of the Elector of Mainz and later of George I of England when George was only Elector of Hanover. He was distinguished by Peter the Great of Russia and Ernst August, Emperor of Germany. He corresponded with Eugene of Savoy and he was ambassador to Louis XIV of France. Sophie Charlotte of Hanover, who married the King of Prussia, was especially interested in him, and he wrote for her his *Theodicy*. The three great Rationalists came from different strata of society. Descartes was a nobleman's son, and he voluntarily relinquished the life that Leibnitz was ambitious to enjoy. Spinoza came from the lower class. Leibnitz was the son of a college professor and belonged to the upper middle class. The ambitions

of Leibnitz reached for large ends, as often happens among educated people in the middle walks of life. Among other things, he tried to reconcile the Catholics and Protestants, and he tried to universalize language by getting universal characters for all languages.

The literary production of Leibnitz was enormous, consisting of some lengthy works, but mainly of correspondence (at one time with a thousand persons) and of dissertations to learned journals and societies. No one book contains his philosophy — the *Monadology* coming the nearest to doing so. His most considerable work is his *Theodicy*. He himself published in book form only two works: his university dissertation on *Individuation* and the *Theodicy*.*

In spite of his many successes, the life of Leibnitz was not happy. From death or other causes his noble patrons changed, until he was left without a patron. His life went from bad to worse, and his death occurred almost unnoticed.

The seventy years of Leibnitz's life fall into four periods. That he passed through three of these periods by the time he was thirty shows the voracity and versatility of his mental powers during their formative and acquisitive state. It also reveals the unusual length of his productive period, — from his thirtieth to his seventieth year. Ten years after his productive period began, when he was forty, he had completed his philo-

* A good selection of Leibnitz's works for the student to read is: *Discourse on Metaphysics* (1690), *Letters to Arnauld*, *Monadology* (1714), *New System of Nature* (1695), *Principles of Nature and Grace* (1714), *Introduction to New Essays* (1704), and the *Theodicy* (1710). See Calkins, *Persistent Problems in Phil.*, p. 74, note.

sophical theory, so that the last thirty years of his life were free for its elaboration and elucidation, and in part for his departure from it. The details of Leibnitz's life are as follows : —

1. *Leipsic and University Life* (1646–1666).

Leibnitz was the son of a professor of the University of Leipsic. He entered the University at the age of fifteen; received his bachelor's degree at seventeen, and his doctor's degree at Altdorf at the age of twenty. He was offered a professorship on account of his thesis, but he declined. He published as his bachelor's thesis, *The Principle of Individuation* (1663).

2. *Mainz and Diplomacy* (1666–1672).

Meeting Baron John of Boineburg, who became his patron, Leibnitz went with him to Mainz, and entered the service of the Elector of Mainz. At this time Leibnitz wrote many pamphlets at the Elector's request, on the religious and political questions of the day. He wrote *A New Physical Hypothesis* in 1671.

3. *Paris and Science* (1672–1676).

Leibnitz began this period with a diplomatic mission to the court of Louis XIV in 1672; but during the year both Boineburg and the Elector died, and Mainz was no longer his home nor diplomacy his interest.

He remained in Paris (and London) three years longer, and spent the time in acquiring the "new science." In Paris he met Arnauld the Cartesian, Tschirnhausen the German mathematician, logician, and most discriminating critic of Spinoza, and he studied with Huyghens the Dutch mathematician. In London he met Boyle, the chemist, Oldenburg, secretary of the Academy of Science, Collins, the mathematician, and he corresponded with Newton. On his return to Han-

over he called on Spinoza, who showed him the manuscript of the *Ethics*.

4. *Hanover and Philosophy* (1676–1716).

Leibnitz became court councilor and librarian to the Duke of Hanover (Brunswick-Lüneburg). He was involved in a multitude of administrative, historical, and political tasks, and he carried on an enormous correspondence. Among other things he wrote the history of the reigning family, which necessitated his going to Rome and Vienna. In 1684 he published his discovery of the differential calculus, over which arose the celebrated controversy as to whether he or Newton made the prior discovery. In 1686, in his fortieth year, he constructed his philosophical system. However, he showed his affiliation to the coming age by introducing into his system in 1697 the term “monad.” *Nearly all his important works were produced in this period.* In 1700 he founded the Academy of Sciences in Berlin. He was instrumental in the founding of an academy at St. Petersburg, and he planned academies at Dresden and Vienna.

The Three Influences upon the Thought of Leibnitz.

(1) *His Early Classical Studies.* The father of Leibnitz, who was a professor of moral philosophy at Leipsic, died when his son was young. Left much to himself, the boy spent his time in his father's library. At eight years he had acquired Latin; at twelve he had read Seneca, Pliny, Quintilian, Herodotus, Xenophon, Cicero, Plato, the Roman historians, the Greek and Latin fathers. He became so absorbed in scholastic studies that his friends feared that he would not leave them, “not knowing that my mind could not be satisfied with only one kind of thing.” There can be no

question that this scholastic training gave him a first hand and sympathetic appreciation of scholastic philosophy. The Aristotelian conception of cosmic purpose, which he got at this time, never left him. Among the writers of the Natural Science Period he alone returned to Aristotle. He made Aristotle's teleological cause an integral part of his doctrine. His motto finally became, in his *Theodicy*, "Everything is best in this best of possible worlds." While for a time he turned from Aristotle to Descartes, in his final construction of his theory he borrowed more from Aristotle.

(2) *The New Science and His Own Discoveries.* Leibnitz was more fortunate than many of his contemporaries in that his university had already included in its curriculum the study of mathematics. At the age of fifteen he was devoting himself to mathematics at Jena, and he said that the study of Kepler, Galileo, and Descartes made him feel as though "transported into a different world." Later in life he said of himself, that at fifteen he had decided to give up the scholastic theory of Forms for the mathematical explanation of the world. He became acquainted with the theories of Hobbes and Gassendi in 1670, when he was at Mainz. In 1672, at the age of twenty-six, when he was in Paris, he made himself possessor of all that the celebrated circle of Parisian scientists had to teach. He had gone to Paris a dualist; he returned to his native land with the Aristotelian teleology side by side in his mind with the Spinozistic conception of identity and necessity, the Spinozistic method, and the mathematical theory of the significance of infinitely small particles. The next ten years (1676-1686) were spent in overcoming his own dualism by systematizing these new theories acquired

from so many sources. In 1680 he had universalized the concept of force so as to apply it to both souls and bodies. In 1684 he published his discovery of the differential calculus, in which he has had to share honors with Newton. In 1685 he asserted that the centres of force have individuality. He was led to this conclusion on account of the discovery of small organisms by the microscopes of Swammerdam and Leeuwenhook. In 1686 he successfully organized his collected material into his final system, although it was not until eleven years later (1697) that he called these centres "monads." Probably he got the term "monad" not from Bruno, but from the mystic chemist, Van Helmont.

Not only the content, but the form of his philosophy was determined by his mathematical studies. His philosophical diction is remarkably lucid. Mathematics reinforced his early resolve "in words to attain clearness and in matter usefulness." His later discussions contain many terms that he had borrowed directly from mathematics.

(3) *Political Pressure for Religious Reconciliation.* When Frederick the Wise of Saxony in 1519 refused the crown of Emperor, Germany was thrown into internal strife that in one hundred and thirty years destroyed all its material wealth and depopulated the country. This terminated in the Thirty Years' War (1618-1648) and the Peace of Westphalia. Leibnitz was born two years before peace was declared. He was the first German scientist in two hundred years. Both Catholics and Protestants were weary of strife, and there was a general movement toward religious reconciliation. Thus religious amity was the most urgent public question.

Pietism had been one of the movements in Germany during the recovery of the country from the Thirty Years' War, and it represented the best side of German civilization at that time. It was a reaction on the one side against the mechanical theory of the scientists, and on the other against the destructive strife of the old and new confessions. The mother of Leibnitz was not only a Protestant, but also a Pietist, so that the subject of religion early formed an important part of her son's training. When he entered the diplomatic service of the Elector of Mainz the question of religious reconciliation took practical form for him. No doubt his philosophy as a theory of reconciliation grew out of such practical issues, as they were presented to him at Mainz. Leibnitz had, therefore, a part in the religious reaction in Germany in the last of the seventeenth century, which aimed to reconcile the divergent interests of religion and science. He tried to effect this in no external way, by patching together irreconcilable elements, but in an internal way, by an examination of fundamental principles. With his early training, his theological reading, and his wide public experience, Leibnitz was fitted to take a prominent part in the movement for reconciliation.

The Method of Leibnitz. Although the philosophers who immediately followed Spinoza did not dare to accept his philosophical conclusions, they adopted his method. They united it with the syllogistic processes of formal logic for the deduction of all knowledge. This method became very prevalent, as is seen in the practices of the German Cartesians and in the preparation of academic text-books. Examples of this are Jung, Weigel, who was Leibnitz's teacher, and Puffendorf,

who tried to deduce by the geometrical method the entire system of natural right from a single principle of human need. In the next century Wolff used this method in writing his Latin text-books.

When this aspect of Spinoza's teaching was gaining a foothold in Germany, Leibnitz came into sympathy with it through his teacher, Weigel, and at first was one of its most ardent supporters. In jest he showed by this geometrical, syllogistic method in sixty propositions that the Count Palatine of Neuberg *must* be elected King of the Poles. In seriousness he believed that all philosophical controversies would cease when philosophy should be stated like a mathematical calculation.

Hobbes's theory of words as counters to be used in conceptual reckoning, the universal formulas of the Art of Lull and the pains which Bruno had taken for its improvement, the Cartesian belief that the geometrical method would prove to be an art of invention — all these were influences upon Leibnitz, that committed him to the method of Spinoza and made him pursue that method energetically. Leibnitz was part of the widespread movement of the time to form a *Lingua Adamica* — a universal language, which should discover fundamental philosophical conceptions and the logical operations of their combinations. In brief, Leibnitz hoped to form a philosophical calculus.

What, asked Leibnitz, are the highest truths which in their combination yield all knowledge? What are the truths, so immediately and intuitively certain, that they force themselves upon the mind as self-evident and thereby form the ground for the deduction of all knowledge? They are of two classes: (1) The universal

truths of the reason, and (2) The facts of experience. The truths of the reason are forever true; the facts of experience have a truth for that single instance. But both are true in themselves and not from deduction from anything else. They are "first truths," for a thing is true if it can be deduced from the reason or tested as an experienced fact. The two kinds of truth are the rational or *a priori*, and the empirical or *a posteriori*. The difference between the starting point of the Rationalism of Leibnitz and the Enlightenment of Locke appears here. Locke said, "There is nothing in the mind that does not come from the senses." "Except the mind itself and its operations," added Leibnitz in comment.

But there is a difference between these two kinds of truth. The truths of the reason are clear and distinct; the truths of experience are clear but not distinct. Leibnitz is, be it observed, making a distinction between the two terms of the pet phrase of the Rationalists — "clear and distinct ideas." He means that rational truth is so transparent that it is impossible to conceive its opposite; that empirical truth is only clear, and its opposite is thinkable. It is impossible to think that the three angles of a triangle equal anything but two right angles, but it is possible to think that its side, which is now two inches, may be four inches. Thus emerge the two logical principles upon which Leibnitz founded his philosophy: rational truths depend upon the *Principle of Contradiction*; empirical truths depend upon the *Principle of Sufficient Reason*. At first Leibnitz conceived that this distinction between truths did not apply to God, but only to man. Man must rejoice in the few rational truths in his possession and

be content with merely establishing the actuality of his experiences. The divine reason can, however, see the impossibility of the opposite both in rational and in empirical truth. Later on Leibnitz conceived the distinction between the two kinds of truth to be absolute. That is, in the nature of things the two truths differ. The rational truth has no opposite, but is a *necessary* truth; the empirical truth has an opposite, and is a *contingent* truth.

Leibnitz thus shows the fundamental principles upon which knowledge is based, but what does he say about the logical method of their combination? Nothing. No one would ever suspect from Leibnitz's philosophical remains that he had planned a system of philosophy according to the method of Spinoza. The many pamphlets of Leibnitz on many scattered subjects show how far short he fell of his ideal of a universal philosophical calculus. He was too versatile, his interests were too diversified, to carry through so slow and plodding a task. He merely stated the principles upon which a systematic symbolic philosophy might rest, without developing these principles in a logical way. Like Bacon, Leibnitz conceived a method that was more of a hope than an accomplishment.

The Immediate Problem for Leibnitz. Perhaps Leibnitz was called away from this purely theoretical problem of method by the practical problem of reconciling science and religion, which problem in his day had become particularly acute. For science had made rapid strides since the days of Descartes, had drawn very far away from religion, and Leibnitz's attempt to reconcile science and religion was much more difficult than that of the preceding Rationalists. Leibnitz had

accepted the most radical results of science, but he saw that science had yielded only a mechanical view of the world. Politics demanded in the exigencies of that hour some principle of unity. He sought to find some philosophical principle for the *living, religious character* of the universe, and a principle that at the same time would preserve the results of science. He therefore sought to leave the conception of mechanical nature intact and go behind it for a teleological principle. He examined the mechanical principles of the science of his day and found them embedded in a deeper metaphysical principle.

The Result of Leibnitz's Examination of the Principles of Science * — A Plurality of Metaphysical Substances. What was the developed scientific principle of Leibnitz's time? And what was the result of his analysis of it? The principle was the mathematical principle of Galileo in more complex form, for there had been added to it since Galileo's day the concept of the atom. That is to say, the fundamental scientific principle was that nature consists of the measurable movements of atoms. From his analysis of this, Leibnitz obtained as follows his conception of a plural number of substances, which he called monads.

1. Leibnitz first scrutinized the scientific conception of motion. His analysis of motion into infinitely small impulses by the method employed by Galileo, Huyghens, and Newton had already led him to one important discovery — the differential calculus. Now he scrutinizes it further and discovers that the fundamental ground of motion is *force*. While Leibnitz was

* Read Hibben, *Phil. of Enlightenment*, ch. vii; Windelband, *Hist. of Phil.*, pp. 420-425.

in entire agreement with other scientists in their effort to reduce all phenomena to motion, he insisted that motion was not by any means the fundamental thing. He calls the Cartesian conception of motion the ante-chamber of true philosophy. There is no absolute motion nor absolute rest. Motion and rest are relative to each other. Descartes' theory that there is conservation of motion is incorrect. Motion and rest are the phenomenal changes of force. Force alone is constant and conserved. Physics points beneath itself to metaphysics; motion points to force. Force is what is fundamental in nature. Force is "that which in the present state of things brings about a change in the future." Therefore force as the substance of nature is super-spatial and immaterial, and therefore the basis of the new physics ought to be dynamic metaphysical substance.

2. Leibnitz next examined the scientific conception of the atom. Gassendi, one of that celebrated group of Parisian scientists, had been the author of the introduction of Greek atomism into modern thought. It had been generally accepted by scientists and combined with the mathematical hypothesis of Galileo. Leibnitz had known Gassendi in Paris, and he took the hard, inelastic atoms of Gassendi under examination. He agreed that the atomist was perfectly correct in saying that material bodies consist of simple parts or atoms. But Leibnitz insisted that the atomist erred in thinking such simple parts to be physical. However simple the parts might physically appear to be, they were not really simple. However small a bit of matter may be, it may be divided again, and the dividing process may go on to infinity. The atom is the extended, and the extended cannot be simple

or real. Substance must be unextended, and the materialists were wrong in attributing substance to the extended. Is there anything simple that has a qualitative character? Is there anything real below the physical atoms? Yes, the metaphysical atoms. The indivisible, immaterial unit lies beneath the physical atom, and in order to reach it we must pass beneath the physical into the metaphysical. This immaterial or metaphysical atom is called by Leibnitz the *monad*; and thus is Leibnitz's theory called *monadology*.

There are three kinds of points, or units, or "simples." There is the mathematical point, which is simple enough, but it is only imaginary. There is the physical point, or atom, which is real but not simple. There is, lastly, the metaphysical point, or monad, which is both real and simple. The metaphysical point is the only true point. To call the material atoms real, only shows "the feebleness of the imagination, which is glad to rest, and is, therefore, in haste to make an end of division and analysis."

3. Leibnitz then identified force, as the substance of motion, with the metaphysical atom, as the substance of the material atom. The result was the monad, as he conceived it. The monads are the principles of active working. They are the super-spatial and immaterial principles in which the mechanical principles of the universe have their roots and meaning. Nature is not dead; it is not merely extended. It is alive, resistant, and reproductive. If, as Spinoza taught, there were only one substance, nature would be non-resistant and passive. But as a matter of fact there are many substances acting for themselves, many bodies resisting other bodies. They are the centres of separate activity, and

there are as many forces as there are things. There is no body without movement, no movement without force. Thus does Leibnitz reintroduce vitalism in a maturer form than is seen in neo-Platonism. Life becomes the principle of nature. Purpose is placed at the centre of things.

The Double Nature of the Monads. The student will find that the philosophy of Leibnitz is spoken of as a pluralism, but the student will also find that Leibnitz devoted nearly all his strength to prove that the world is after all a unity. Leibnitz analyzed the world into a plural number of parts, and the question then with him was, how to put these parts together again in an organic unity. This accomplishment would depend a good deal upon his conception of the nature of the parts.

The monads have a double character. Leibnitz conceived the monad (1) as a force centre and (2) as an immaterial soul. This makes an equivalence of psychical and physical attributes which reminds us of the Stoics' "fiery reason" of God. The word "force," as Leibnitz uses it, squints both toward physics and toward psychology. But such ambiguity about the monads, the cornerstones in Leibnitz's philosophy, assists Leibnitz's reconciliation at the start. Here, in a miniature, the physical and spiritual lie in unity. The monad is conceived as a *soul-atom*.

Leibnitz came to philosophy with a mind saturated with the mathematical ideas of the continuous, the infinitesimal, and the possible. He thought of the monads as potentialities or possibilities. He looked upon the world as essentially a developing world. Behind the facts that seem to us inflexible, lies the great world of generating force. Explanation of the actual can be made only in

view of what the actual may be and has been. Let us enlarge the scope of man by so widening his conception of the actual that it will include the possible. Leibnitz also spoke of the monads as infinitesimal. He thereby lifted the conception of the infinitesimal from the realm of mathematics into that of metaphysics, just as Hobbes universalized the conception of mechanics by lifting it to metaphysics. Leibnitz, therefore, did not regard the limits of perception as the limits of nature: the reality of a nature object must be too small to be the object of perception. In the same way he made use of his mathematical conception of continuity. Leibnitz's conception of nature-continuity is one of his contributions to philosophy. Within itself the world of nature consists of a continuous gradation from the lower to the higher forms; and also the world of nature is continuous with the world of the spirit. There are no leaps in the series from matter to God. Seeming differences in kind are only differences in degree; for example, evil is only the absence of good; matter is only an obscure idea of spirit.

But this Leibnitzian atomism consists of soul-atoms. These monads, these force-centres are souls, and the mathematical qualities have a place in Leibnitz's description of the psychical powers of the monad. The monad is a soul, for soul is the only substance in the universe that may pass through many changes and it, itself, not change. The self is the only subject of which many predicates may be asserted, while it, itself, may not be the predicate of any other subject. The idea of myself underlies all my mental states. The monad is an entelechy, or an entity having its purpose within itself. All its attributes are contained within itself, and it is, therefore, by nature, sufficient unto itself. It is an

individual which passes from one state to another, moved by its "constitutional appetite."

Among the psychical powers none is more important in Leibnitz's description of the monad than its power of representation. Representation is the general function of the monad — from the lowest to the highest monad. This means that each monad is the world force, yet in a particular form, — a world substance, but in some peculiar aspect. Every monad is a microcosm. Each represents the world so far as it is conscious of its own activity. But it is evident that all things in the universe are not conscious, and therefore all soul-monads are not conscious. In souls there are, therefore, more than conscious thoughts — there are thoughts that are unconscious. Among the Rationalists Leibnitz is the first to give significance to the so-called unconscious states that form so important a place in modern psychology. (But see Plotinus.) As a wave is composed of small particles of water, so the mind is made up of a myriad of unconscious states. The conscious state is the general effect of the whole. A soul-monad contains in itself at all times representations of the whole world, some obscure, some clear. This power of universal representation makes the monad a microcosm. What we call knowledge of the external world is our representation of it within ourselves. This representation is possible to us because we reproduce it in miniature. Since the monad directly perceives only itself and its own states, it follows that the more clearly and distinctly it is conscious of its own activities, the more adequately does it represent the cosmos. The converse is also true — that the more a monad represents the cosmos, the more truly does it represent itself.

In his development of his description of the monad, Leibnitz hits upon two catch-phrases, one of which presents his doctrine of the physical isolation of the monad, the other presents the doctrine of its ideal psychical unity. These phrases are: "the monads are windowless" and "the monads mirror the universe." By "windowless" Leibnitz means that each monad is "like a separate world, self-sufficient, independent of every other creature." "Having no windows by which anything can enter or depart," the monad can perceive only its own states. Whatever happens to it comes from itself alone as a purely internal principle. The monad's development is self-development and not the result of external changes. Nevertheless the monad is a "mirror of the universe." In this psychical qualification of the nature of the monad, its physical isolation vanishes and the way is open for a unity of monads, which would have otherwise seemed to be physically hopelessly sundered. How is it possible for each of the numberless monads, all so different, to "mirror the universe"? The answer is found in their psychical power of representation.

The Two Forms of Leibnitz's Conception of the Unity of the Substances. The principle of unity among the monads is called by Leibnitz a *preëstablished harmony*. He presented this principle of harmony in two ways. In part the harmony comes out of their constitution, as he conceived it to be. In part Leibnitz artificially superimposed it upon the monads for theological reasons. In either case it is preëstablished.

The Intrinsic Unity of the Monads — The Philosophical Unity. There is a family resemblance among the monads. The lowest reproduces the universe in obscure and elementary representations. Minerals and

plants are sleeping monads with entirely unconscious ideas. Animals are dreaming monads. Man is a waking monad. The highest monad is God, who reproduces the universe in clear and distinct ideas. Between God and matter there is a series of monads, graded as to the clearness of their ideas. All contain the universe by representation. All are bound together according to the principle of continuity; plants are lower animals and animals are less perfect men. Man is a monad whose conscious activity has risen to the height of self-consciousness, with the cognate power of reason. There is no inert matter; no soul-less bodies nor body-less souls. The smallest portion of dust is the habilitment of animalculæ. Nothing is dead, and nature is a gradation of monads in differing degrees of activity.

Metaphysically the monads are isolated, yet in nature as we see them, they live in groups, and compose the things which we call plants, animals, and men. An organic thing is a combination of monads with a central ruling monad. This central monad is the soul of the group; the subordinate ones form the body of the organism. The influence of the soul or ruling monad upon the body-monads is purely ideal. They all strive for the same end, which the soul represents more clearly. The group acts spontaneously and together, not from any outside influence. An inanimate object differs from such a living organism, inasmuch as it is a group of monads without a soul or a ruling, central monad; and therefore such a monad is both soul and body. There is therefore no dualism between soul and body in any creatures, for body is only obscure or unconscious activity. The body consists of monads having a confused sense of their activity.

This continuity and unity within the world, as Leibnitz sees it, is only the logical development of the unity with which he originally endowed his monads. Although he starts the monads as "windowless," he also says that "they mirror the universe." They are so conceived as to be originally physically separated, but psychologically and ideally united. "Their natural harmony resides in an ideal of perfect activity, while in actual existence they are independent." The ideal which unites them is God, the last term in the graded series of the monads. He is the monad of monads, because He is perfect, conscious activity. Just as the various groups of monads are ruled by a central soul-monad, so the world of these groups is an hierarchy, which derives its unitary and harmonious character from this dominating monad. The world may be likened to a pyramid with God at the apex. The world is like a machine which differs from other machines, in that its parts are little machines. Although the parts seem to operate separately, they are under the dominating control of God. God is their intrinsic unity and the universe is a pre-established harmony.

A comparison with Spinoza's conception of the world of nature brings out Leibnitz's meaning effectively. Both philosophers conceive nature phenomena to be under the law of mechanical causation. To Spinoza, however, all phenomena are qualitatively alike; there are no grades or distinctions of value between them. All are modes of substance and all illusions in the sight of God. To Spinoza phenomena are homogeneous. Leibnitz's estimate of the world of nature is quite different, and for him nature has a far richer endowment. The phenomena of nature are not homogeneous. Their

difference does not consist in their content, but in the degree in which they represent the universe. The law of nature is a unifying principle that gives unitary individuality to the members under the law. The individuality of the terms of the nature-series is implied in the very nature of the law of necessity, and on the other hand, the individual terms, for their part, transform the law of necessity into a principle of unity that is higher than bare necessity. In a necessitated series, Leibnitz points out, each term is determined by the preceding, and in turn each term determines the events that follow. Thus, while nature phenomena are a series and a necessitated series, it is a series whose existence depends upon each event having not only its place, but its unique place. No other event can fill that place, and the conditions that give the event its place constitute its individuality. Every finite event has, so to speak, its formula, and this gives individuality to each term of the series, which appeared to Spinoza only as a homogeneous, mathematical, and characterless mode. Life is meaningful to Leibnitz, because each member of the necessitated series of events has its unique part to play. The changes of life are to Spinoza void of meaning, because he conceives them to be undifferentiated. The law of mechanical necessity became under Leibnitz's hands a principle of harmony, a teleological principle. Even in the necessitated mathematical series, such as Spinoza conceived the world to be, Leibnitz believed that necessity implies individuality and individuality implies purpose.

How vital, therefore, does life now appear, with its mechanical members transformed into living units! Universal striving or force fills nature, and the surging

of individual forces gives a new meaning to the unity of the whole. The mechanical series — the physiological changes of our bodies and the efficient causes in nature — are only the expression of the inner teleological development. Leibnitz points out several pregnant principles that are aspects of this preëstablished but intrinsic harmony. In the first place, nature has no breaks and abhors a vacuum; and the series is a continuous one, — *the law of continuity*. Member follows member in continuous and graded order. Their qualitative differences are differences of quality of activity. Rest and motion, good and evil, are differences of degree. In the second place, there is nothing superfluous; no two things in nature are alike. If they were alike, they would be identical — *the law of the identity of indiscernibles*. Although there is no absolute antithesis or contrast between things, there is no absolute likeness. Every monad must be differentiated from every other intrinsically, *i. e.* according to its perfected activity. Therefore, in the third place, every member has an excuse for being — *the law of sufficient reason*. Every member has its part to perform and no other can act as an understudy for it. However insignificant any member may appear to be, it is as unique as its bigger neighbor.

The Superimposed Unity of the Monads — The Theological Unity. The intrinsic unity of the monads is derived naturally from the monads themselves, but it is an unattained ideal for which they strive. When Leibnitz turns his philosophy into a theodicy, or justification of the nature of God, this unity of the world takes on a different form and assumes a theological importance. The unity is no longer an intrinsic unity, with no actual but only ideal existence depending upon the

highest monad in the series, but is an actual personality who exists apart from the world. The world is his eternal purpose. Probably this conception was always in the background of Leibnitz's thought, but it cannot be deduced from his philosophy. It is a conception afterwards superimposed upon his philosophy. Leibnitz now conceives God not as an ideal goal, but as a perfect and actual person, whose reason impelled Him to construct the best possible world. The world in which we live is the world He chose. It is perfectly conceivable that the world could be different. Why, among all the possible worlds, did God choose to construct this world? There is no reason in logic, but in fact. There was no necessity for its construction. The fact is the excellence of the world. Spinoza said that all possible worlds exist. Leibnitz said this best possible world exists. Look about you; is it not so?

The best possible world is a world of free agents, whose acts are rewarded or punished according to their deserts. If we discover what seems to be inexplicable evil, we must regard it as an incident in the harmony of the whole. The world would be less good without evil. There is no more evil than there ought to be. The world which God conceived to be the best possible — this world — is a world of lights and shades. Evil comes from the free agency of man, and God is not responsible for it. It is better to have evil and free agency than no evil and no free agency. Evil after all is not positive, and is only due to the indistinct ideas of man. It is the absence of good, as cold is the absence of heat.

Thus a preëstablished harmony was constructed by Leibnitz that does not come out of his original philosophical premises. Leibnitz used his celebrated figure of

the two clocks to illustrate the harmony of the monads. Two clocks keep the same time, not because they influence one another (interaction), nor because the maker moves the hands of one (Occasionalism), but because they have been thus constructed by an intelligent Creator. Thus the harmony of the world implies a personal God. Leibnitz's philosophical Rationalism here passed into theology, and his metaphysics became an ethics. Leibnitz began with a monadology, and by means of the conception of harmony passed to an optimism.

CHAPTER VI

THE ENLIGHTENMENT (1690-1781) *

The Emergence of the "New Man," — Individualism. In passing to this period we should recall the two objects of interest that distinguish modern from mediæval thought: the "new man" of modern Europe; and the "new universe"—new in its geographical outlines and in its intellectual materials. We have already found that the two hundred and more years of the Renaissance, the first period of modern thought, was absorbed in exploiting the second of these objects—the "new universe." In fact the "new man" had been so interested in the "new universe" that he had not thought of studying himself. He had systematized the great wealth of his acquisitions and had constructed great systems of science and metaphysics.

This second period of modern thought—the Enlightenment—begins when the "new man" turns away from his intellectual struggles with his environment and attempts to understand his own nature. Thus the more important of the two objects emerges last; and this turn to self-reflection constitutes the century of the Enlightenment. The Renaissance had been subjective and spectacular; the Enlightenment was subjective and tragic. The mental activity of the Renaissance had been vital, spontaneous, and unconscious, like the awakening from sleep; that of the Enlightenment

* Read Windelband, *Hist. of Phil.*, pp. 437-440, 447-449, 500-502; Hibben, *Phil. of Enlightenment*, pp. 3-13, 18-20.

was self-conscious and attitudinizing. The man of the Renaissance had been in love with nature; the man of the Enlightenment was in love with himself. Like the Greek Sophistic Illumination, which is its parallel in ancient history, the Enlightenment turned away from cosmological and metaphysical problems. On the other hand, the philosophy of the Enlightenment penetrated all departments of life and found expression in practical questions. Erdmann has well expressed the meaning of these nine decades of the Enlightenment as "an effort to raise man, so far as he is a rational individual, into a position of supremacy over everything." It was during this period, which we are now about to enter, that Herder brought into currency in Germany the word "humanity." In England the same sentiment was uttered by Pope in 1732 in his *Essay on Man*: —

"Know then thyself, presume not God to scan;
The proper study of mankind is man."

The Enlightenment marks, therefore, the rise of modern individualism; and the concerns of the individual become the important object of consideration. The novelty of the great discoveries and inventions of the Renaissance had lost its lustre. The "new universe" had become old and familiar, but through his accomplishments the "new man" had begun to feel the strength of his liberated powers. For had not the wonderful world of the Renaissance been his own accomplishment? Had not all its notable constructions been the creations of his powers? The "struggle of traditions" to revive antiquity and to incorporate the "new universe" upon an old basis; the "strife of methods" to reorganize the "new world" upon a new basis — re-

vealed this great fact: that man has "world wisdom." Man in his supremacy occupies the entire foreground, and interest in the "new universe" fades away. The "new universe" is now seen in the light of one's personal interests. Man is supreme, and to his word there can be no exception. There is constant reference during this time to the "light of reason"—to a bright inner, rational illumination in contrast to the vagaries of mysticism and the obscurities of dogmatism. The worship of genius arises and with it a contempt for the unenlightened. "Thus would I speak, were I Christ," said Bahrdt. No wonder that Goethe described the Enlightenment as an age of self-conceit!

The Practical Presupposition of the Enlightenment—The Independence of the Individual. The "new man" emerged from the Renaissance as the most important object of consideration, and during the Enlightenment there was never the slightest question about his independence. The individual became the original datum of this period into which we are now entering; he was considered to be the only thing that is self-intelligible; he was the starting-point from which all social relationships were to be explained. Among the many problems that arose, the independent existence of the individual remained unquestioned. It was the period of "liberty, equality, and fraternity." The problems were about the relations of the individual; never about the individual himself, for concerning the individual no problem could arise. The individual rejoicing in the exuberance of his own powers, the "monad enjoying himself," dominated everything. The monadology of the Renaissance became an atomism in the Enlightenment. The individual was the practical assumption of the period.

The Metaphysical Presupposition of the Enlightenment. There was a metaphysical background to this practical assumption of the individual. This was the Cartesian dualism of mind and matter. Although the eighteenth century despaired of a successful metaphysical construction of the "new universe," and although its attention was riveted on an analysis of human relationships, it must not be supposed that the period was without its metaphysical bias. Such is not the nature of human history; and if an epoch refuses to discuss metaphysical questions, it is because it assumes some metaphysics as true. The assumption of the independent individual implies the independent existence of matter. The Enlightenment assumed the Cartesian theory as correct. While many were the polemics against metaphysical speculation, the Cartesian dualism was nevertheless in control. Here within is the independent existence of mind; and it would naturally follow that there without is the equally independent existence of matter. The conception might fade into a ghost-like dualism, as in Berkeley and Hume, but the dualism never entirely vanished. This has since been known as the philosophy of "common sense," and is to-day the easy attitude of those not interested in metaphysical discussions. "Common sense" means the opinion of the majority as to truth. Most people to-day, as then, accept without question some sort of dualism, usually the dualism of mind and body.

The Problems of the Enlightenment. The area of inquiry was thus very much restricted during this period. Nature lies beyond our ken. God is still more incomprehensible. From the study of nature and God, let us turn to a study of the problems of the inner life.

Yet while the field of study was restricted, the problems within it were multitudinous, and there was an astonishing breadth and universality, a tenacity of everything, a disdainfulness of nothing. Within its own field the Enlightenment sought to systematize and to stand by any idea in spite of all opposition. The imagination took bold flights and, from the standpoint of the inner individual life, tried to transform its world. Overloaded with ballast, it tried to reconcile the irreconcilable and to overlook the brute facts of existence. The problems arise from an age that is self-opinionated, self-tormenting, and subjective.

The problems of this age may be divided into two classes, — utilitarian and critical, — both having reference to the individual man in his relations. These include the problems of psychology, epistemology, sociology, economics, politics, etc. There was, for example, the problem of our knowledge of the external world, of the validity of innate ideas as the basis of knowledge, of the rational basis of religion. Thought was very alert at this time, as is always the case in times of great individualism, and thought could move with great rapidity over the wide range of such subjects.

(a) **Utilitarian Problems.** The Enlightenment was curious about the interests, the happiness, and the many powers of the individual. Empirical psychologists and brilliant ethical scholars appeared. How much can man know, and what are the limits and extent of his knowledge? The Rationalists of the Renaissance had accepted without question the mediæval teaching that a group of our ideas is innate and therefore God-given. The Middle Ages had been built up on revealed knowledge. But to the thinkers of the Enlightenment the

most important ideas — yea, the only ideas of service to us — are those derived from experience. We should be happier if we confined ourselves to the facts of every-day life, and did not try to deal with things beyond experience. Let us give metaphysical theories to the Churchman. Empirical psychology thus took the place of metaphysics, and became known as philosophy. It was the favorite science of the time, and the basis of ethics and epistemology. Philosophy thus came out of the school, and became a public utility. It was based, to be sure, upon theological preconceptions, but it was to be put to the service of man. It was to be an instrument of discovery as well as a means of grace. With this psychological incentive great schools of moralists arose, especially in England: studying morality as based on the intellect, on the feelings, on authority, on the association of ideas.

Empirical psychology led to self-inspection, and this is the age when self-inspection was universal. It is the age of the founding of "societies for the observation of man." It is the age of sentimental diary writing. Rousseau wrote his autobiography in France, and it was followed by a flood of autobiographies in Germany. Even memoirs of such scoundrels as Laukhardt were written and read as matters of public interest. Religion, too, took the form of personal experiences and individual conversions; and the church was more interested in the experiences of the saved than in the dogma of salvation. The Methodist movement arose in England and spread over the continent and to America. Individual opinions were more important than conventions; friendships than marriage; societies than corporations. The historical was lost to view because the

personal and particular occupied the foreground. Gibbon said, "All ideas were equally true in the eyes of the people, equally false in the eyes of the philosophers, equally useful in the eyes of the magistrates."

(b) **Questions of Criticism.** In the second place, the Enlightenment is a period of criticism and stands in contrast with the constructive Rationalism of the Renaissance. From Locke's invective against innate ideas to Hume's skepticism of the law of cause, from Voltaire's examination of the foundations of religion to Rousseau's polemic against society, the age was one of the criticism of authority. The psychologists, moralists, deists, and sociologists were revolutionists — all striking directly or indirectly at absolute political sovereignty, against the theoretical dogmatism and the ceremonious morality in which the Renaissance was complacent. The revolution began in the realm of the intellect and spread to political society. It was natural that the beginnings should be made in the apparently harmless theoretical examination of the grounds of knowledge and the principles of morality; but the outcome was a general sweep of historical criticism, in which authority and science, the church, the state, and education came under censure. The spirit of man was impatient. Man became indifferent to "learning." In contrast with the Renaissance, this was a time when books were little read, proper names infrequently appeared in writings, authorities were little cited. Let man study himself if he would learn about history and understand the world. Man stands above the scholar, the Christian, the German. He is independent of tradition, and should substitute the useful for the historical. Cosmopolitanism takes the place of patriotism. The Enlight-

enment is practical and yet imaginative. Its criticism aims to strip man of all his artificialities and to find his natural state. Its emphasis is negative and destructive.

The revolt of the Enlightenment against the past appeared in remarkable changes in the political map of Europe. Mediæval Europe was breaking to pieces. The Renaissance had been a period of social absolutism in which the despotic powers of Macchiavelli and Richelieu were typical of its political life. In this period new-comers forced their way into politics and the Enlightenment was marked by the rise of Russia, Prussia, and the American colonies. France and Austria, representing the past, were arrayed against England and Prussia, representing the future of Europe. The conflict between them was that of the old idea of military despotism, non-commerce, and non-toleration against the new spirit of individual freedom. From the Peace of Westphalia (1648) to the Seven Years' War (1756-1763) occurred many conflicts which presaged the breaking down of the old boundaries. The old régime received its death-blow at the hands of Frederick the Great in the Seven Years' War; and a half-century later (1806) the Holy Roman Empire came to an end.

In all countries there were vigorous political movements in support of the rights of the individual. In England the House of Commons began to rise to power and the colonies in America to assert their independence. In France the Bourbon family was fast losing its grip, to be completely overthrown in the French Revolution (1789). The current was entirely in the same direction in Germany. This was the time of Adam Smith and the rise of economic theories. It is a matter of no little significance that this period from the point

of view of philosophy begins with Locke's psychological *Essay* and ends with Kant's *Critique*; and from the point of view of politics it begins with the Revolution of 1688 in England, and ends with a revolution in France and another in the American colonies.

A Comparison of the Enlightenment in England, France, and Germany. The individualism of the Enlightenment expressed itself as a rationalism in Germany, as a sensationalism and deism in France, and as a deism and an empiricism in England. Nevertheless all its phases may be found in each one of these countries. The outcome of the movement in the three countries is, however, very different. In England the Enlightenment passed into a philosophical reaction in the so-called Scottish School; in France, it resulted in a political revolution; in Germany, it merged with a great literary movement and resulted in a creative idealism.

The Many Groups of Philosophers of the Enlightenment. A comparison of the lists of philosophers of this with those of other periods reveals an extraordinary number of names. The Renaissance, for example, shows about half as many names of consequence, although it is about twice as long. The Enlightenment teems with philosophers, for its secular life was permeated with the reflective spirit. The philosophers are also often notable men, whose names are familiar to the modern reader. Nevertheless the number of constructive philosophers was exceedingly few. Only Locke, Berkeley, and Hume can be found whose importance equals that of Bacon, Hobbes, Galileo, Descartes, Spinoza, and Leibnitz. In personal talents and importance to their age the others seem to go in groups or to be part of

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the secular spirit. On the whole the history of the Enlightenment is that of social movements, and the philosophers seem to be the exponents of such movements.

Some of these important groups are as follows : —

In England.

1. *Associationalist Psychologists*: Peter Brown (d. 1735), Hartley (1704–1757), Search (1705–1774), Priestley (1733–1804), Tooke (1736–1812), Erasmus Darwin (1731–1802), Thomas Brown (1778–1820).

2. *Moral Philosophers*: Shaftesbury (1671–1713); morality based on intellect, Samuel Clarke (1675–1729); Wollaston (1659–1724); morality based on feeling, Hutcheson (1694–1747); Home (1696–1782); Burke (1730–1797); Ferguson (1724–1816); Adam Smith (1723–1790); morality based on authority, Butler (1692–1752); Paley (1743–1805); ethics based on associational psychology, Bentham (1748–1832); in an isolated ethical position, Mandeville (1670–1733); the Platonist, Price (1723–1791).

3. *The Deists*: Toland (1670–1722), Collins (1676–1729), Tindal (1656–1733), Chubb (1679–1747), Morgan (d. 1743), Bolingbroke (1678–1751).

4. *The Scottish School of Philosophy*: Thomas Reid (1710–1796), Oswald (d. 1793), Beattie (d. 1805), Dugald Stewart (1753–1828).

In France.

1. *Skeptics*: Bayle (1647–1706), Voltaire (1694–1778), Maupertuis (1698–1759), d'Alembert (1717–1783), Buffon (1707–1788), Robinet (1735–1820).

2. *The Sensualists*: La Mettrie (1709–1751), Bonnet (1720–1793), Condillac (1715–1780), Cabanis (1757–1808).

3. *The Encyclopædists*: Diderot (1713–1784), Voltaire, d'Alembert, Rousseau (1712–1778), Turgot, Jaucourt, Duclos, Grimm (1723–1807), Holbach (1723–1789), Helvetius (1715–1771).

4. *The Political Economists and Constitutionalists*: Montesquieu (1689–1755), Quesnay, Turgot, Morelly, Mably.

5. *The Sentimentalist*: Rousseau (1712–1778), the most notable figure of France during the Enlightenment.

6. *Philosophical Revolutionists*: St. Lambert (1716–1803), Volney (1757–1820), Condorcet (1743–1794), Garat (1749–1833).

In Germany.

1. *Thomasius* (1655–1728), the first of the Enlightenment.

2. *The Wolffians*: Wolff (1679–1754), Bilfinger, Knutzen (d. 1751), Gottsched (1700–1766), Baumgarten (1714–1762).

3. *The Geometrical Method and its Opponents*: Hansch, Ploucquet, Crousaz, Rüdiger (1671–1731), Crusius (1712–1775), Budde, Brucker, Tiedemann, Lossius, Platner.

4. *The Psychologists and Related Philosophers*: Kruger, Hentsch, Weiss, Irwing, Moritz (1757–1793), Basedow (1723–1790), Pestalozzi, and Sulzer.

5. *The Independent Philosophers*: Lambert (1728–1777), Tetens (1736–1805).

6. *The Deists*: Schmidt, Semler (1725–1791), Reimarus (1699–1768), Edelmann.

7. *The Pietists*: Spener (1635–1705), Francke (1663–1727), Arnold, Dippel.

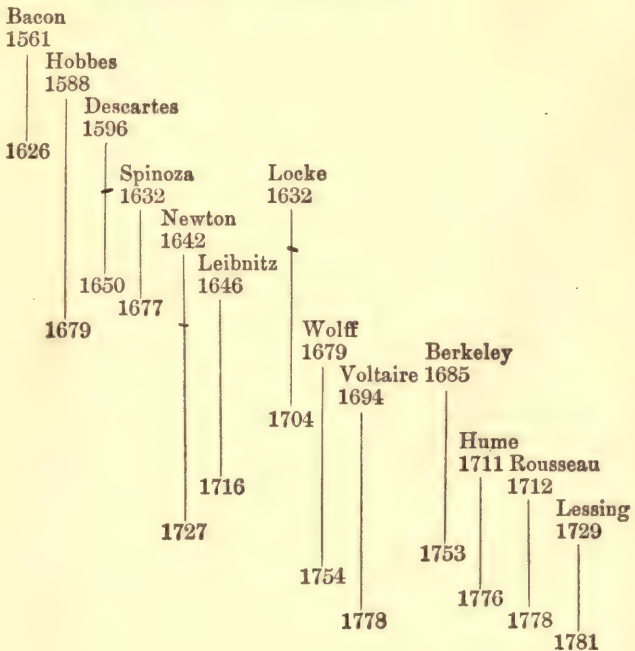
8. *The Popular Philosophers*: Mendelssohn (1729–

1786), Nicolai (1733–1811), Basedow, Abbt, Engel, Feder, Meiners, Garve.

9. *The Writer on Philosophical Religion*: Lessing (1729–1781).

10. *The Writer on Faith Philosophy*: Herder (1744–1803).

The philosophers of greatest importance in this period are given below. To help the reader keep in mind contemporary philosophical influences other names are given with them in a parallel table.





MAP SHOWING THE BIRTHPLACES OF SOME OF THE INFLUENTIAL THINKERS OF THE ENLIGHTENMENT (1690-1781)

(Note that the names of the philosophers are given in brackets beneath the names of the towns and cities)

CHAPTER VII

JOHN LOCKE

The Enlightenment in Great Britain. The history of the philosophy of Great Britain includes the teachings of Locke, Berkeley, Hume, and the Scottish School. With the exception of the teachings of the reactionary Scottish School, all the important philosophical teachings appear in the first half of the eighteenth century. We need to understand, first, the philosophical position of Locke, who was the father of the Enlightenment. We shall then see how his doctrine developed in three different directions: (1) as Deism, — a rational Christianity, (2) as an associational psychology in ethics, (3) as a theory of knowledge in the philosophies of Berkeley and Hume.

Our discussion of the philosophy of Bacon and Hobbes has been followed by that of Rationalism. It would, however, be a mistake for the reader to infer, as we are about to take up the study of Locke, that a long period of time intervened between Hobbes and Locke. A chronological comparison of their lives shows that they were contemporaries for forty-seven years. Both lived through the reign of Charles I, during the Commonwealth and the Restoration. Hobbes died eleven years before Locke published his only philosophical essay. We must remember, too, that the English empirical philosophers of the Enlightenment were not insulated from the Rationalists of the Continent. On the contrary, there was a lively interchange of ideas. Descartes influenced Hobbes

and Hobbes influenced Spinoza. The influence of Descartes upon Locke was not inconsiderable, and Leibnitz felt the influence of Locke. Berkeley and Leibnitz arrived at idealistic conclusions from independent points of view. Bacon alone seems to stand apart both from his contemporaries and from his immediate followers.

The English Enlightenment was the natural development of the English Renaissance. Locke was the successor of Bacon and Hobbes. On the other hand, the English Enlightenment is similar to what went on in France and Germany. The first half of the English Enlightenment — from 1690 to 1750 — was absorbed in philosophical discussions ; during the second half, the period abandoned philosophy, and was engaged entirely in politics. The classes that won in the Revolution of 1688 had little trouble in maintaining their place of power. The peaceful coming of William and Mary gave well-ordered conditions for intellectual development and for a powerful literary movement. The Jacobites were crushed, and there ensued a period of political peace. In the latter half of the century, however, another set of topics came to the front. After 1750 politics superseded philosophy ; and whereas the keenest English minds had been employed upon the theoretical “study of mankind” in literature and philosophy, they now became engaged in practical political questions. Political parties developed. The Court was arrayed against the families of the Revolution, the American trouble, and the Wilkite agitations were looming large. England was sucked into the political maelstrom that was involving all Europe. Instead of deistic controversies with the theological orthodoxy, dangerous political questions were appearing. Instead of Hume’s *Essay* and Butler’s *Ana-*

logy we have Burke's speeches, Adam Smith's *Wealth of Nations*, Junius's *Letters*, and political pamphlets. In the first half of the period Bolingbroke had left politics for philosophy; in the second half Priestley left his laboratory for politics. The great change in English intellectual interests is shown in Hume himself. In 1752 he turned from philosophy, because there was so little interest in the subject, to the writing of his history of England. Theology was paralyzed; deism was no longer ridiculed; orthodoxy slumbered in its victory. The only philosophic tones came from France, where Voltaire, the Encyclopædists, and Rousseau were carrying out a movement that had its origin in England; and, on the other hand, from Scotland and its reactionary school. But the political movement always remained political in England, because its institutions were not inflexible and because the English people are by nature constitutional. In England there has never been a revolution, in the true sense, but England's progress has always been controlled by tradition. Even the revolution in the English colonies in America was caused by an abridgment of constitutional rights, and not by political theory, although the formal Declaration of Independence was framed under the influence of French philosophers.

John Locke, Life and Writings (1632-1704).* The life of Locke falls into four periods.

1. *Student Life* (1632-1666). Locke passed his first fourteen years at home, which were the troublesome years of the Civil War. The next six years were spent at the Westminster School in London. The last four-

* Read Rand, *Modern Classical Philosophers*, pp. 215-217, 248-262; Eucken, *Problem of Human Life*, pp. 380-388.

teen years of this period were spent, first as student and then as lecturer in Oxford. He took his Oxford degrees in 1660, the year of the Restoration and the year in which the British Royal Society was founded at Oxford. His dislike for the classics, which was begun at the Westminster School, was confirmed by his Oxford studies. Consequently, during the years of his perfunctory lecturing at Oxford (1660–1666), his main interest was in physics. He was engaged in chemical, meteorological, and especially medical observations. He was also engaged in an amateur medical practice, in partnership with an old physician.

The first turning point in his life came in 1666, when he was called to attend the first Lord Shaftesbury, who had fallen ill at Oxford. This accidental meeting was the beginning of a lasting friendship with the Shaftesbury family, sustained by their common love for political, religious, and intellectual liberty. The first Lord Shaftesbury was the most notable statesman in the reign of Charles II; the third Lord Shaftesbury was the greatest of English ethical scholars. Locke was the trusted friend and beneficiary of the first Lord Shaftesbury, the tutor of the second, and influenced, more than any one else, the ethical productions of the third. Locke wrote some notes in this period on the Roman Commonwealth, an essay on toleration, and made records of physical observations.

2. *As Politician* (1666–1683). During these seventeen years Locke's outward fortunes were intimately connected with the political career of Shaftesbury. He held public office. He was made a member of the Royal Society in 1668. The winter of 1670–1671 was important for his intellectual fortunes and marks another

turning point in his life. It was then that he started the inquiry that led to his famous *Essay*.¹ The *Essay* was in the process of development during the next nineteen years. He passed four years in retirement and in study in France (1675–1679). He also at this time first conceived his *Essays on Government*. Shaftesbury fled to Holland in November, 1682, and Locke a few months later followed him.

3. *As Philosophical Author* (1683–1691). The year 1689 divides this period into two important parts. The first part (1683–1689) is not only the period of his exile in Holland, but it is the time in which he is composing and completing his three most important literary works, — *Essay on the Human Understanding*, the two *Treatises on Government*, the three *Epistles on Tolerance*. During the second part (1689–1691) he published these, which was the time immediately following his return to England. Newton's *Principia* was published in 1687, and Locke's *Essay* in 1690 — the one the foundation of modern physical science, the other the beginning of modern psychology. The appearance of these two works together with the Revolution in 1688 makes this point of time an important one in the history of the world.

4. *As Controversialist* (1691–1704). Locke then began to write upon almost every conceivable subject, — the coining of silver money, the raising of the value of money, the culture of olives, etc. He was also very busy in defending his philosophy against attacks. For him, until 1700 the period was one of controversy. At that time he retired from all activity, and after four years of failing health died in 1704. His period of produc-

¹ See *Essay*, introductory epistle to the reader.

tion was confined to the eleven years between 1689 and 1700.

The Sources of Locke's Thought. 1. *His Puritan Ancestry.* The ancestry of Locke is little known, and not much that appears in his personality can be explained by it. Both his father and mother were Puritans, and he seems to have inherited the severe piety, prudent, self-reliant industry, and love of liberty, that were common in English Puritan families of the middle class in the seventeenth century. During the first fourteen years he was schooled by his parents.

2. *His Training in Tolerance.* If Locke inherited in the least degree any temper of intolerance from his Puritan ancestry it entirely disappeared with his experiences before and during his life at the University of Oxford. In 1646, at the Westminster School, his mind revolted at the cruel intolerance on both sides in the events just succeeding the Civil War. He also rebelled at the stern scholastic training which he received. These negative influences were supplemented by positive incentives to freedom and toleration during his university life. John Owen was the liberal Vice-Chancellor of Oxford at that time, and the university granted freedom of thought to all Protestants. Locke felt Owen's influence throughout his whole life. The fact that Locke's intimate friend at Oxford was Professor Pococke, the most outspoken Royalist in the university, shows that whatever Puritanism there was in Locke's nature had been ameliorated. Tolerance and liberty of opinion became now the key-note in the life of John Locke. "A gentle disposition, great love for his friends, an honest seeking after truth, and a firm faith in the importance of personal and political freedom are the traits most

remarkable in Locke as we know him from his books and letters." His toleration was not of the same sort as that of his contemporary Leibnitz. Leibnitz sought to reconcile discordant elements by combining them into a new dogmatic theory ; Locke neglected disagreements, sought no perfect harmony, but pointed out a *via media* that any individual might take. Leibnitz set forth a metaphysical system ; Locke gave a practical method. He had great directness, and was a man of honesty of thought. Not being a partisan he had no side to defend ; and he was not a partisan because philosophy was not his trade. Philosophy was to Locke the accomplishment of a gentleman who was interested in the puzzles of life. His diction is for ordinary people ; it is simple and expressed in short Anglo-Saxon words. He shows no logic of thought ; and while any sentence is admirable, the paragraph and the page are dull. His *Essay* is a chaos of plain truths, only here and there illuminated by imagination. He shows no poetic power, and the world in which he lived never fired his imagination. He studied the human mind as he would read the thermometer. To our fathers his *Essay* was a philosophical Bible. To us the *Essay* stands, not like a completely planned building, but like an enlarged cottage, very habitable, but making no single impression.

3. *The Scientific Influence.* As a fellow-countryman of Ockam and the two Bacons, Locke shows the same anti-mystical and positivist tendencies. He was a thorough Englishman in taste and temperament. When the "new philosophy" was finding its way into the Oxford circle, he was one of the first to welcome it. It came to the University through books ; the lecturers were still true to Aristotle. Descartes, Hobbes, and

Bacon were widely read, as was also Gassendi's exposition of Epicurus. Locke himself writes concerning the influence of Descartes upon him. He gave up all thought of becoming a clergyman; and his personal friendship for Bayle, a famous chemist, and for Sydenham, a no less famous physician, interested him in the empirical method as they applied it to chemistry and therapeutics. He owed his philosophical awakening to Descartes and the Port Royal logic. The lucidity of Descartes came to him as an inspiration of intellectual liberty; although he afterwards used the principles that Descartes had taught him to controvert his teacher's doctrine.

During the first period of Locke's life (1632–1666) he was nothing more than a student of medicine and a meteorological observer. He was the retired scholar who led so placid a life that it portended nothing noteworthy. He was a creditable scholar and teacher, but his life was negative in character. He had passed through stirring times, and they did not stir him.

4. *The Political Influence.* Locke's interest in politics began when he was thirty-four years old — when he met Lord Ashley at Oxford. For fifteen years he shared the home and fortune of this most remarkable man of affairs in the reign of Charles II. This Lord Ashley (Earl of Shaftesbury) fled to Holland in 1682, and died there the next year. After the death of his patron Locke left England for exile in Holland until 1689, when he returned to England with William and Mary. In Holland he found a brilliant company, exiled from all countries; and he formed an intimate friendship with Limborch, the leader of liberal theology in Holland. Some of the time he lived with a Quaker.

Locke's friendship with Shaftesbury and his residence in Holland confirmed him in his belief in political liberty. So when William entered England and needed literary justification for the Revolution, he got it in Locke's two *Treatises on Government*. Locke thus became the philosophical defender and intellectual representative of the Revolution that now after fifty years had reached its culmination.

Summary. On the whole, the inherited Puritanism of Locke was easily modified not only by his own moderate disposition, but also by his scientific interests and by his large political experiences. He naturally grew to be the apostle of the *via media* between traditionalism and empiricism. He published practically nothing before he was sixty years old. After his return from exile his principal works appeared in swift succession. Two accidents formed turning-points in his life. His accidental meeting with Shaftesbury in 1666 turned him to politics; and secondly, at an informal meeting of friends in the winter of 1670-1671 the question about the nature of sensations was accidentally raised, out of which grew his great *Essay*. His life was primarily one of affairs and of large acquaintance with men and things. To him life was the first thing, his interest in politics came second, and his philosophy third. That his ideas should have been the basis of extreme philosophical and political beliefs on the Continent is natural enough when one remembers the perils of misinterpretation to the man who preaches the doctrine of the *via media*.

The Purpose of Locke. In the historical perspective of two centuries we to-day see Locke in his *Essay on the Human Understanding* delivering the inaugural

address of the eighteenth century. He is making the first formal declaration of the intellectual rights of the individual in a lengthy, dry, and erudite psychological dissertation. Of course he never knew the historical importance of his own work. It grew out of the need of the hour. He would have been astonished to find himself the spokesman of the century of French Encyclopædists, materialists, and revolutionists, of English deists, of German Illuminati, of Hume, and of Voltaire. He had in mind to answer the restrictions of the high churchman on the one hand, and the arrogant claims of the atheists on the other, as to the power of the human intellect. He states that his design is to "inquire into the original certainty and extent of human knowledge." In this declaration Locke foreshadows Kant, but he falls short of the insight of Kant. For Locke speaks for the spirit of the eighteenth and not the nineteenth century, and (1) he must keep within the range of concrete facts; (2) he must state only what can be stated clearly; and (3) he must be practical. It was, however, in its larger meaning a declaration of human freedom. Locke shows what limitations the human intellect has, what it can and what it cannot know. When the Enlightenment got momentum, it forgot the limitations to knowledge that the sober Locke had set down, and read in his words only a declaration of license. The *Essay* differs from any previous modern philosophical writing. Man and not the universe is the subject. For the first time we find an examination of the laws of mind, and not of the laws of the universe.

But it is the *via media* for which Locke stands, and not the lawless excesses of the eighteenth century. The human reason is not all-knowing — cannot solve all

problems, is not endowed with divine ideas; on the other hand, the human reason is not merely a string of sensations. The human reason is just this: it is *human*. It stands midway between divine intuition and animal sensation. Man is free, but free under his own limitations. "If by this inquiry it may be of use to prevail with the busy mind of man to be more cautious in meddling with things beyond its comprehension — we should then not be so forward, out of affection for universal knowledge, to perplex ourselves and others with disputes about things, to which our understandings are not suited and of which we have not any notions at all." Human freedom stands between the absolute freedom of God and the absolute necessity of the animal. Human freedom lies within the limits and bounds of human ideas — the *via media*; and analysis of those ideas will show what those limits and bounds are. There can be no knowledge without ideas. Some ideas may be erroneous and out of all relation to reality. On the other hand, there may be ideas to which no experiences fit. Intellectual freedom consists in having not isolated ideas, but ideas in their relations, that is, in the form of judgments. Locke was moved in making his analysis of ideas by a general moral purpose to correct the faults and fallacies in mankind and in himself. "Man's faculties were given him to procure the happiness which this world is capable of," says Locke, and it might have been Bacon who had said it. The search for the *via media* is justified by its practical and utilitarian ends. The *via media* is the way of freedom.

Two Sides of Locke's Philosophy. The search for the *via media* is an attempt to find "the limits and extent of human knowledge." This involved Locke in a

discrimination as to what should be accepted and what rejected of the past. It gives his philosophy a positive and a negative aspect. In brief, on its negative side he makes a show of rejecting the entire past by rejecting all innate ideas, but really he inconsistently accepted from the past its conception of substance and of individuality. On its positive side he builds up from experience a theory of knowledge which he divides into intuitive, demonstrative, and probable. That is to say, while Locke affirms that all our knowledge must be derived from experience, it never occurs to him to doubt the traditional Cartesian theory of the existence of God, man, and matter.

(a) **The Negative Side — Locke and Scholasticism.** Locke issued an avowed defiance to scholasticism in the introduction of his *Essay*. Of the four books into which the *Essay* is divided, the first was composed last and added as an introductory declaration of independence. If it had been the only part ever written, the anarchism of the eighteenth century would have been right in finding its justification in the *Essay*. To a modern mind this first book looks harmless enough, but in Locke's time it had a deep sociological and political meaning. It expresses his practical moral defiance of traditional mediævalism. "There exist no innate ideas," says Locke. Innate ideas mean to him the tyranny of tradition — unexamined and unsubstantiated beliefs, conceptions unverified by fact. They stand for church dogma imposed upon the unthinking masses, the absolutism of monarchy and the divine right of kings, the inherited superstitions about nature. Spinoza had deduced his entire philosophy from the innate idea of substance; Descartes had found at least three innate ideas;

Leibnitz believed all ideas innate. Locke pleads for the personal right to examine all ideas. Locke's critics have claimed that no philosopher ever maintained the existence of innate ideas in the sense in which Locke attacked them. Locke was aiming at something more vulnerable than innate ideas themselves — he was attacking the mediæval habit of the individual who takes a thing as true because the thing has the weight of traditional authority.

(b) **The Positive Side — The New Psychology and Epistemology.** If inherited ideas have no weight for Locke, he was bound to show the kind of ideas upon which we can rely. The mind enters upon life with no stock of ideas in trade ; how do they arise ? The logical outcome of Locke's disclaimer of scholastic psychology obliged him to construct a new psychology and theory of knowledge. He must offer a psychology as a constructive programme for the individualism of the Enlightenment. In his second book Locke states the positive side of his doctrine by saying that the mind is like a white paper without any original markings ; that it gets its markings from the impressions made upon it. Thus to deny innate ideas and to affirm that all ideas are empirically aroused, are the negative and positive sides of the same doctrine of individualism. They are two ways of saying that the mind of the individual is free to judge for itself of the truth or falseness of its experiences.

In his denial of the existence of innate ideas, in his use of the formula that "nothing is in the intellect that has not been first in the sense," or in his employment of the figure of the "white piece of paper," Locke does not intend to state anything further than that the mind

is free. He merely means that the individual starts without trammels and prejudices. He does not mean that the mind is completely passive and at the mercy of its environment, as his French followers interpreted him. Locke is a sensationalist, but he does not belong to that class who believe that our mental states are merely translated sensations, and that the mind itself is merely passive. He believes that the mind does not create its ideas, but that they are presented to it. The mind has original powers upon which it can reflect. The mind can operate with its ideas and make them into compounds. Thus one must read Locke's *Essay* to the end to get his double point of view. In the second and third books he frequently discusses the contents of the mind as if the mind were passive, in the manner of modern psychologists. In the fourth book he develops an epistemology on the assumption that the mind is active and free.

Locke's Psychology. The second and third books of the *Essay* are a discussion of the empirical sources of our ideas. One notes the Cartesian dualism of mind and matter in the background. All ideas have their source either externally in the impressions upon the bodily senses, or internally in the operations of the mind itself. The sources of ideas are either sensations or reflections, or, as Locke calls them, "outer and inner perceptions." Locke also calls them "simple ideas," being the units out of which the complex ideas are constructed. We understand easily enough what Locke means by sensations, but "reflections" is a word peculiar to him, which has not been taken up by philosophy. He means by "reflections" a consciousness of the machinery of the mind. We are, that is to say, conscious

of our willing, loving, remembering, etc. As to the order of their appearance in the mind, the sensations are prior to the reflections and are the occasion for the appearance of the reflections. The reflections are not the process of transmitting the sensations, but they are the later and mechanical transmutation of the sensations. It is important to note that throughout Locke's psychological analysis, he regards the mind as passive, even with respect to the ideas of reflection. The reflections, as faculties of the mind, are dependent on the sensations, and both sensations and reflections make impressions upon a passive mind.

These "simple" ideas come into the crucible of the mind and form "complex" ideas of various sorts. There are three general classes of these complex ideas: substances, modes, and relations. The construction of "complex ideas" out of "simple ideas" and the objects to which the complex ideas refer receive a great variety of illustration at Locke's hands, but the details of his lengthy discussion need not detain us. He is very painstaking; he shows hard common sense; but he is deficient in logical classification and he often betrays much indecision. His *Essay* is of encyclopædic character in its derivation of all common notions from "simple ideas." The laws of association form the chemistry by which he welds the "simple ideas" together.

Thus far Locke is empirical and consistent. However, the dualistic background of the thought of his age makes him deviate from his avowed empiricism. Besides the clear and simple ideas of sensation and reflection Locke introduces the idea of the Self. What is the idea of Self? It is not a sensation nor a reflection. It is not a complex idea, derived from sensations and re-

flections. "It is an internal, infallible perception that we are." It is an accompaniment of the processes of thought. It stands beside the ideas, which are empirically derived, as an unexplained remainder. The result of Locke's psychological analysis is therefore that the inner world of the mind consists of the combination of the simple ideas of sensation and reflection plus the unexplained idea of the Self.

Locke's Theory of Knowledge. Although Locke says that the purpose of his *Essay* is to show the limits and extent of human knowledge, he does not reach this until the last book. The first three books form a long introduction to the fourth book and his real theme. Here for the first time he treats the mind as active; and here for the first time in the history of thought the attempt is made to show what questions man can answer with certainty, what with probability, and what are beyond man's knowledge.

All the difficulties in the assumptions of the Enlightenment come out in Locke's treatment of his main theme. Locke defines knowledge as the "perception of the agreement or disagreement of our ideas," and yet he says that knowledge is real only as ideas agree with things. That is to say, Locke had assumed (in Book II of the *Essay*) the existence of the material substance of things of the outer world, just as he assumed the existence of the spiritual Self-substance of the inner world. What is the nature of the outer material substance? Locke hesitates, and the best he can answer is, "It is the unknown support and cause of the union of several distinct, simple ideas." Substance, to Locke, is a word for something unknown. But does the mind know nothing about substance? What information do our ideas

convey to us of substance? We have this knowledge: we know the *primary* or constant, unchangeable qualities of substances, and the *secondary* or variable qualities of substances. The *primary* qualities of bodies are the same as their effects in us, such as the extension of bodies, their solidity, movement and rest, duration and position in time. The *secondary* "are nothing in the objects themselves but powers to produce various sensations in us by their primary qualities." Secondary qualities are sounds, colors, etc. In this confused statement it would seem that substance stands as merely the nominal support of the *primary* qualities, and the *primary* qualities are the cause of the *secondary* qualities.

Thus the individual stands forth free in the development of his ideas, but he is an individual circumscribed by his dualistic world. He belongs to the world of an unexplained spiritual substance on the one hand, and he is surrounded by a world of an unknown material substance on the other. There are three kinds of knowledge: intuitive, demonstrative, and probable. Locke says that the individual is intuitively certain of his own ideas. The individual has also demonstrative knowledge—he can reason logically and mathematically. But Locke's real problem does not lie with intuitive and demonstrative knowledge. The question that concerned him was rather, What is the character of our knowledge of the external world? The individual in the Enlightenment lived in a spiritual independence of matter, yet he had a feeling of uncertainty about his hold upon a world of matter so different from himself. It was a world foreign to his spiritual essence. With the deepening of the mind within itself and with its growing independence, the equally independent material world

grew more difficult and distant. Locke feels this difficulty. How can man know this external world? How can the individual, with all his freedom, bring the external world under his control?

Besides the certainty of intuitive and demonstrative knowledge, there is a third kind according to Locke. This is the probable knowledge of the nature world. We are certain of our sensations, but we are not certain of what our sensations report. The highest degree which our knowledge of the external world can attain is probability, or an inference from many sources. Such knowledge is mere opinion, which supplements certain knowledge and operates in the large field of our daily existence. The spiritual individual stands in a kind of twilight region with the dull wall of the material world of probable existence looming up before him, the outlines of which he can barely discern. On either side of this twilight existence lies the broad daylight of intuitive and demonstrative knowledge, and around it all the absolute darkness of ignorance. Our knowledge is much less than our ignorance because our knowledge is limited to our ideas and their combinations.

Locke's Practical Philosophy. Locke pursued the *via media* in his discussion of the practical problems that were at that time of burning importance in English society. He always kept in mind the spiritual man who is circumscribed by his own limitations. Morally, religiously, and politically the individual has to conform to the conditions in which he lives. But morality, religion, and government cannot get their authority from ideas inborn in the mind. All are the outgrowths of experience. The moral law, for example, is a law of nature, although at the same time it is a law of God. It arises

from experience, and at the same time it has its root in God. To obey it is to be happy, to disobey it is to be unhappy. The revelation of religion, too, may transcend experience, but it must not contradict experience. In both religion and morality the individual must be the final judge, for he is the arbiter of his own happiness. Individual happiness is of more value than all else. Religious toleration is therefore one of the first principles of government, and between the church and the state there should be no conflict.

Locke's political philosophy is along the same *via media*. In his *Treatises on Government* he seeks to make good the title of King William to the British throne. He justifies the right of the individual to revolt under certain conditions. Political government is not a sacred innate idea, but has arisen out of experience as conducive to the happiness of man. The individuals and the government make a contract to serve each other. When either violates the contract, the State is at an end. To the advocates of the divine rights of kings, like Filmer, political law antedated "nature"; to Hobbes, law came after "nature"; to Locke, law is "nature." To Filmer "nature" was a golden age; to Hobbes it was a shocking state to be got rid of; to Locke "nature" is harmony. Thus according to Locke the individual has through his experiences constructed his morality, his religion, and his government because they are conducive to his happiness, and at the same time they have their ground in the "nature" of things. The individual stands free among them, the central figure in the world.

The Influence of Locke. The philosophy of Locke became the fountain-head of the many divergent schools

of thought of the Enlightenment. His *Essay* did not contain anything fundamentally new, and its presentation has little originality; but it voiced the thought of the eighteenth century so easily, and with such skillful avoidance of pitfalls, that it made Locke the most widely read and the most influential philosopher of his time. Four separate movements had their source in him: (1) From his theory of knowledge, in which the emphasis is laid upon the mind as active, came the empirical idealism of Berkeley and Hume; (2) from his psychological analysis in the second and third books of the *Essay*, in which the mind is regarded as passive, came the sensationalism of the French; (3) from his theory of religion came Deism; (4) from his associationalistic ethics came the utilitarian ethical theories of the English moralists. The most constructive followers of Locke were Berkeley and Hume. The others may be called the lesser Lockian schools; for although they may have exercised a much greater influence upon their own time, they were nevertheless only partial interpreters of Locke. We shall deal briefly with Deism and Ethics in England, next consider at length the philosophies of Berkeley and Hume, and then present in a summary but articulate way the development of the Enlightenment in France and Germany.

The English Deists. We have seen how Rationalism, especially in the case of Descartes, tried at the beginning to reconstruct theology without breaking with established dogma. Gradually, however, rationalism and revealed religion showed signs of divorce. Some of the rationalists came to take the stand that if reason can understand the nature of God, revelation is either incredible or superfluous. The revealed religions differ.

The god of the mediæval people is not the same as the god of the heathen nor as the Jehovah of the Jews. There are many religions and many sects in each religion. There must be to them all a common basis, which is the true religion. This was the creed of Deism or Natural Religion. Positive religions are only the corruptions of natural religion, or the religion of reason. Deism sought to separate religion from special revelations, which were looked upon as the irrational elements of religion. Bacon and Descartes had freed natural science from church dogma; Hobbes had freed psychology from the same dogma; Grotius had freed the conception of law from dogma. The Deists would free religion from dogma.

Deism was founded on three principles; (1) the origin and truth of religion may be scientifically investigated; (2) the origin of religion is the conscience; (3) positive religions are degenerate forms of natural religion. The tendency of the Enlightenment was deistical, and the movement was powerful in England, France, and Germany. Deism was quite consistent with the central principle of this period — the self-sufficiency of the individual.

In England the first deist was Herbert of Cherbury (1581–1648), with his “five fundamental propositions of religion.” The body of English deists, however, got their cue from Locke’s identification of the moral law with the law of nature; but Locke himself was not a deist. The literature of deism coincides for the most part with the English moral philosophy of the period, but usually the group of English deists is supposed to include only Toland, Chubb, Tindal, Collins, Morgan, and Bolingbroke. These men lived in the first half of the Enlight-

enment. They were much despised by the scholars of the time as being mere dabblers in letters. "They were but a ragged regiment whose whole ammunition of learning was a trifle when compared with the abundant stores of a single light of orthodoxy; whilst in speculative ability they were children by the side of their antagonists."*

The English deists passed from view at the end of the first half of the eighteenth century, crushed by the weight of the attack upon them. The more powerful orthodoxy, with its greater talent, was itself rationalistic, and could beat them on their own ground. The churchmen showed that the objections against the God of revelation would be equally effective against the deistic God of nature. The classic argument along this line against the deists is Bishop Butler's *Analogy of Religion*. The battle was unequal, and the character of the books published during the controversy reveals the inequality of the contest. The deistic publications were small and shabby octavos, and were published anonymously. The orthodox publications were solid octavos and quartos in handsome bindings, with the credentials of powerful signatures. Even if the orthodoxy had not employed the arm of the law against the deists, the deists would have been broken by the intellectual force against them.

The English Moralists. Just as the motive of the deists was to free religion from the authority of theology, so the motive of the celebrated group of English moralists of the Enlightenment was to find a basis for morality outside of church dogma. Many of the English

* Read Leslie Stephen, *History of English Thought*, vol. i, pp. 86-88.

moralists were also deists in belief. Their number is legion, as the list given below will show. The greatest among them was Shaftesbury.

The school began with Hobbes and received momentum from the associational psychology of Locke. All the members of this group sought to find an ultimate basis for morality — some seeking it with Locke in experience, others in innate ideas. Yet the starting-point with each of these moralists seems to be Hobbes and his selfish ethics, for nearly all ethical scholars have his ethics in mind, either to attack or to defend. For many years Hobbes was regarded by ethical scholars either as an evil spirit or as an inspired genius. In any case, his influence was felt in ethical discussion for a long time.

Chronological Table of the English Moralists.

	1500	1600	1700	1800
Hobbes.....	88	.. 79	.. .. .	.. ..
Cudworth.....	..	17 88	.. .. .	.. ..
Locke.....	..	32 ..	04 .. .	.. ..
Cumberland....	..	32 ..	18 .. .	.. ..
Wollaston.....	..	.. 59	24 .. .	.. ..
Mandeville.....	..	.. 70	.. 33 ..	.. ..
Shaftesbury....	..	.. 71	13 .. .	.. ..
Clarke.....	..	.. 75	.. 29 ..	.. ..
Berkeley.....	..	.. 85	 53	.. ..
Pope.....	..	.. 88	.. 44 ..	.. ..
Butler.....	..	.. 92	 52	.. ..
Hutcheson.....	..	.. 94	.. 47 ..	.. ..
Edwards.....	..		03 .. 58	.. ..
Hartley.....	..		05 .. 57	.. ..
Tucker.....	..		05	74
Reid.....	..		10	96
Hume.....	..		11	76
Smith.....	..		23	90
Price.....	..		23	91
Paley.....	..		.. 43 ..	.. 05 ..
Bentham.....	..		.. 47 ..	.. 32 ..
Stewart.....	..		 53	.. 28 ..
Whewell.....	..			95 .. 66
Mill.....	..			06 73

CHAPTER VIII

BERKELEY AND HUME

The Life and Writings of George Berkeley (1685–1753). In Bishop Berkeley we have the finest type of Irish mind. In his brilliant mental powers and idealistic theory he reminds us of that wonderful Irish scholar of the Middle Ages, John Scotus Erigena. Berkeley was acutely critical, and yet he possessed a childlike religious faith. He combined an insatiable longing for knowledge with an ardent missionary zeal. “Berkeley was a born child of Plato, a lineal descendant of a race whose origin is afar off and is divine.” * He was one of those exceptional minds that begin to bring forth their intellectual offspring when they are young. Berkeley began to publish at the age of twenty-four, Hume at twenty-eight, Descartes at forty-one, Locke at fifty-eight.

We shall divide the life of Berkeley into three periods.

1. *His Early Training* (1685–1707). Nothing is known of Berkeley’s early years, except that he was born in Kilkenny, Ireland. He was educated at the Eton of Ireland, the Kilkenny school, where Swift had been a pupil; and it is known that one of Berkeley’s schoolmates was Thomas Prior. Berkeley entered Trinity College, Dublin, at fifteen, and graduated at nineteen. Scholasticism was still influential at Trinity, but new sciences, such as botany, chemistry, and anatomy,

* Read Royce, *Spirit of Modern Philosophy*, p. 86; Rand, *Modern Classical Philosophers*, pp. 263–277.

had been added to the curriculum. There, too, the young Berkeley found that Locke's *Essay* was much discussed, and that Newton, Boyle, Malebranche, Descartes, and Leibnitz were widely read. From this early date Berkeley began to keep a book of his own philosophical reflections, calling it his *Commonplace Book*. From it and from his philosophy it would appear that Locke and Malebranche were the most powerful philosophical influences upon him.

2. *As Author* (1707–1721).

Berkeley remained at Dublin as tutor and fellow five years after his graduation. In 1709 he was ordained deacon in the English church. He published two mathematical tracts in 1707, his *Theory of Vision* in 1709, his *Principles of Human Knowledge* in 1710. The *Theory of Vision* and the *Principles of Human Knowledge* were practically a statement of his philosophy. They have been compared thus: the *Theory of Vision* teaches that "all that we see is our sensation"; the *Principles of Human Knowledge* teaches that "all that exists is our knowledge." Berkeley then went to London, where he was admitted to the court of Queen Anne and also to the circle that included Steele, Swift, Addison, and Pope. Berkeley showed himself humble, wise, considerate, and unselfish, and although he was shocked at the court life, he on his side charmed every one whom he met. He wanted to make his idealism better understood, and so he published it in the form of a dialogue between a realist and an idealist. This publication was called *Three Dialogues between Hylas and Philonous* (1713). He then made two journeys to the Continent — 1713–1714 and 1716–1720 — and spent much of the time in Italy, where he absorbed

its literature. The South Sea swindle turned him to economics, and in 1721 he published an *Essay toward Preventing the Ruin of Great Britain*.

3. *As Priest and Missionary* (1721–1753).

Berkeley was appointed Dean of Derry in 1721 at a salary of £1100. Although he threw himself into his work with his accustomed zeal, there had already appeared in his mind the conception of an ideal society, where church and state would be united. He was disgusted with the worn-out European society, and wanted to remove the youth to a colony where there would be no temptations. He raised a large sum of money for this purpose, and obtained the promise of a grant from the government of £20,000, gave up his deanery, and sailed for America. He intended to settle in Bermuda and there to found an ideal State, which should also be a centre for the conversion of the American Indians to Christianity. The promised grant from the English government did not come, and Berkeley got no farther than Newport, R. I., where he lived three years. While at Newport he wrote *Alciphron, the Minute Philosopher*, and published it in England in 1732. The records of Trinity Church in Newport show that he preached there many Sundays. He gave several books to Harvard and Yale Colleges. At Newport he was visited by Samuel Johnson, an Episcopal missionary, who afterwards became president of King's College in New York. Johnson was converted to Berkeley's idealism, and through Johnson the doctrine was received by Jonathan Edwards, his pupil.

From 1734 to 1752 Berkeley was Bishop of Cloyne. He was devoted to missionary work among the poor, and many of his people being afflicted with an epidemic

of influenza, he treated them effectively with tar-water—a remedy he had learned from the Indians. He published *Siris*, an essay on the philosophical virtues of tar-water, in 1744. In 1752 he went to Oxford to live, and in 1753 he died.

The Influences upon the Thought of Berkeley. Berkeley's philosophy shows little development after his first publications. With the exception of *Siris*, which contains much Platonic idealism, the later works of Berkeley are scarcely more than an elaboration of his early thought in the *Theory of Vision* and the *Principles of Human Nature*. We should infer, therefore, that the only philosophical influences upon Berkeley were the original springs at which he drank as a youth. Moreover, he always speaks with the dogmatic certainty of one who has drawn his material from but few sources. Never does he exhibit the indecision of a man who is embarrassed by many points of view. The two chief influences upon him were Locke and Malebranche. The influence of Locke was partly of the nature of a reaction: Berkeley accepted Locke's psychological analysis, but reacted from Locke's "common sense" dualism as early as the time of his student life at Trinity. Malebranche, with his theory of "occasional causes," reinforced his opinion along the line that his reaction took. But Berkeley's own incisive genius had a relatively greater influence in dictating the course of his philosophy than is usually the case. His mind was precocious, fertile, and continuously versatile. Furthermore, Berkeley's simple religious nature seems to have been an important factor in determining his intellectual belief. His peculiar idealism could take root only in a mind inspired by faith.

The Purpose of Berkeley. The life and teaching of Berkeley were dedicated to the true interests of religion. He may be called the religious Enlightener. He would not, like the deists, strip religion bare of dogma, but he would unlimber dogma and rational philosophy so that they would be of service to religion. *His purpose was to free scholasticism on the one hand, and rationalism on the other, from abstractions and obscure terms, and thereby bring about a union of faith and knowledge.* Berkeley looked upon himself as a crusader who would retake the Holy Land for the spiritual individual.

We have remarked that one of the presuppositions of this period of the Enlightenment is the independence of the individual. The individual around which Berkeley's philosophy centres is the spiritual individual, and is therefore unique even for this period. Such an individual is superior to his environment because he belongs not to a material world, but to a community of religious beings who can talk and walk with God. The English Enlightenment passed from Locke to Berkeley. The inner life came into complete ascendancy and the spiritual individual emerged. From the Lockian philosophy, with its many contradictory motives, there appeared the audacious one-sided philosophy of Berkeley, with its proclamation of the reign of spirituality. It stood in marked contrast with the development of the Enlightenment in France—a development of materialism and material atoms. The spectral although stubborn boundaries of the unknowable material world, which Locke supposed to shut around the powers of the human intellect, crumbled before the hand of Berkeley.

The casual reader of the history of thought is, however, often disconcerted at the appearance of such a philosophy as Berkeley's in this period of empiricism, and especially as the immediate follower of Locke. The English school is called the empirical school, and yet Berkeley is also called an idealist. But we must remember that empiricism and idealism are not antithetical. [Empiricism refers to the source of our knowledge; it means that all our knowledge is primarily derived from sense-perceptions.] These sense-perceptions may be of two kinds: they may be (1) psychological facts, or (2) material facts. Berkeley was, like Locke and Hume, an empiricist of the first class; and yet because he denied the independent existence of material facts, he was also an idealist. He was an empirical idealist, just as the French philosophers of the Enlightenment were empirical materialists. The critic may find that Berkeley is not a consistent empiricist, to be sure, but neither was Locke. Berkeley started out by affirming the testimony of experience against scholastic speculation and abstraction; yet all along he assumed the scholastic conception of mind. Nevertheless, this assumption of the individual makes Berkeley a true child of the Enlightenment.¹

Berkeley's General Relation to Locke and Hume. The growth of this English school from Locke to Hume is not difficult to understand or to remember. It is not so much a page in the history of metaphysics (the nature of reality) as in epistemology (the theory of

¹ Berkeley and Hume were really also dualists, like Locke and all other Enlighteners. The ideas were substituted by them for material substances. As objects of knowledge the ideas were antithetical to the knowing process. Hume tried to overcome this dualism, but he was not successful in his attempt.

knowledge). Locke asks, What can we know? And he replies to his own question, that we can know our "ideas." At the same time he assumes the existence of a spiritual substance on the one side, and a material substance on the other. Neither of these is an idea, in the sense that it is an object of knowledge. The advance of Berkeley from Locke and of Hume from Berkeley was one of cancellation. Berkeley cancelled the material substance, because the material substance is not an idea. Hume then consistently enough asked, Why not for the same reason cancel the spiritual substance? The spiritual substance is not an idea or object of knowledge. We have no more right to assume it than the material substance. The only things we know to exist are our ideas. The development of the English school may be briefly put as follows:—

Locke, Spiritual substance — ideas — material substance.

Berkeley, Spiritual substance — ideas

Hume, ideas.

Hume is Locke made logically consistent. Berkeley went only halfway. Hume among these three was the only self-consistent empiricist. On the assumption that all knowledge is derived from sense-perception the history of the English empirical school was a history of the restriction of knowledge.

Berkeley's Points of Agreement with Locke. Berkeley starts from Locke's psychological analysis as the basis of his own theory. The purely scientific aspect of the contents of mind as classified by Locke does not call for particular criticism from him. Logical classification does not seem to concern him very much, and while he accepts Locke's analysis, he often calls Locke's classes

by other names. He commits himself to Locke's psychological empiricism in the first sentence in his *Principles*: "It is evident to any one who takes a survey of the objects of knowledge, that they are either ideas actually imprinted on the senses; or else such as are perceived by attending to the passions and operations of the mind; or, lastly, ideas formed by the help of memory and imagination — either compounding, dividing, or barely representing those originally perceived in the aforesaid ways." Our knowledge, therefore, deals only with ideas. There are the simple ideas of sensation and reflection, and ideas compounded from these.

Besides accepting the psychological analysis of Locke, Berkeley also adopts without question the assumption common to Locke and all the philosophers of the Enlightenment, — the assumption of the independence of the individual soul. "But besides all the endless variety of ideas or objects of knowledge, there is likewise something that knows or perceives them — what I call mind, spirit, soul, or self. By which I do not denote any one of my ideas, but a thing entirely distinct from them, wherein they exist, or, which is the same thing, whereby they are perceived."

Berkeley, therefore, (1) agrees with Locke that all knowledge is derived from sense-perception, *i. e.* he agrees with Locke's empirical psychology, and (2) he also agrees with one of Locke's assumptions, *viz.*, that the spiritual substances exist.

The Negative Side of Berkeley's Philosophy. We have now pointed out Berkeley's general relation to Locke and Hume, and more in particular his agreements with Locke. We are now prepared to examine the teaching of Berkeley by itself.

Berkeley was obliged to devote a good deal of time to the negative side of his philosophy. Just as Locke could not construct an empirical psychology until he had disclaimed all allegiance to innate ideas, so Berkeley could not construct an idealism until he had brought to bear in a polemical fashion all his forces against abstract ideas. Of his two masterpieces he devotes the entire essay on the *Theory of Vision* and a good part of his *Principles of Human Nature* to this end.

1. In proof of this he advances his analysis of abstract ideas. He not only denies that abstract ideas have a corresponding external reality, but he even denies that abstract ideas exist in the mind itself. The deception in abstract ideas arises from the use of words as general terms. Words are always general ; ideas are always particular. There is never an idea that exactly corresponds to a word. Words are useful not as a conveyance of ideas, but for inciting men to action and arousing the passions. Whenever a word is used, what we think of is the particular sense, idea, or group of sense objects that give rise to it. For example, the word "yellow" cannot be employed by us except in connection with the thought of some particular yellow thing. Berkeley is a nominalist of the extremest type.

2. Again Berkeley seeks to show, by demolishing the distinction between primary and secondary qualities, that matter as an abstract idea has no existence. This distinction was as old as the Greek, Democritus, and was accepted by Locke. We have already described it: of a thing like a lump of sugar, the sense qualities of whiteness, roughness, sweetness, etc., are secondary because they depend upon our sensations for their ex-

istence ; they are the ways in which our organisms are affected, and not true copies of things ; the mathematical qualities, form, size, density, impenetrability, are primary because they exist independent of our senses and are true copies of things. Hobbes had already shown that such a distinction is erroneous, and Berkeley followed him by maintaining that all qualities are secondary. The size and impenetrability of a body depends as much on sense-perception as its sweetness and color. At some length in his *Theory of Vision* Berkeley takes up the question of the solidity, or third dimension, of a material body, and shows that it is an inference depending on sensations arising from the convergence of the two eyes and complicated by the sensations of touch.

Berkeley professed to be pleading the cause of the man in the street who wants a philosophy that is real "common sense." He maintained that the conception of matter is only a philosophical subtlety for those philosophers who seek for something beyond perception. The man in the street wishes to explain things as he finds them, and not to seek mysterious abstractions which philosophers say in one breath that we know, and in another that we cannot know.

Therefore, while Berkeley agreed with Locke's assumption of the existence of the spiritual substance, he departed from Locke in denying the existence of a material substance. Berkeley accepted, therefore, one of the two assumptions common to the Enlightenment, but he denied the other. Now Berkeley was trying to prove a thesis. He was controlled by the ideal of his ardent religious nature to free religion from false philosophy. He felt that the foes of religion — atheism and materialism

—had employed effectively abstract ideas, which had been one of the weapons of religion, against religion itself. Berkeley concentrated his attack against the traditional scholastic conception of abstract ideas in general and the abstract idea of matter in particular. Abstract ideas have no existence; the idea of a material substance is an abstract idea and therefore has no existence. Berkeley was bound from the beginning of his religious crusade to explain away the existence of material substance.

The Positive Side of Berkeley's Philosophy.* In the construction of his theory in a positive way Berkeley abridged the dualism of "common sense," and asserted that the abridged form was better. He converted the dualism into a religious hypothesis, but it was a dualism still, — a dualism of minds and their ideas. Berkeley then set to work to show how much better his theory would explain the problems of knowledge. "Berkeley sought to humanize science." He set the spirit free by relieving it of the falsities of the old dualistic assumption, but the usefulness of his abridgment lay in its solution not of metaphysical, but of epistemological problems.

1. Berkeley's theory may be summed up in his own abbreviated statement of it, — *Esse est percipi* (to be is to be perceived). Or it may be stated in that figurative and oft-quoted paragraph, "Some truths there are so near and obvious to the mind that a man need only open his eyes to see them. Such I take this important one to be, viz., that all the choir of heaven and the furniture of the earth, in a word all those bodies which

* Read Hibben, *The Philosophy of the Enlightenment*, chap. iii.

compose the mighty frame of the world, have not any subsistence without a mind — that their being is to be perceived or known.” Or we may state Berkeley’s position in the terms of a modern interpreter¹ of him: “All objects are mentally discerned; all objects are mentally constituted.” Berkeley means that the existence and character of all objects are within the confines of consciousness, and there are no objects outside of consciousness. As sense-perceptions they have reality; as memories they lose their warmth and distinctness; but they are not objects at all when neither perceived nor remembered. These objects are always colored by the sense-perception. They are received through the consciousness, and constituted by the consciousness. Minds and their ideas are all that exist.

2. Berkeley does not try to prove the existence of the mind or soul, nor does he attempt to show that we perceive the soul. But in the spirit of the Enlightenment he hardly questions its reality. He takes its existence for granted, and like the philosophers of the period he makes a direct appeal to consciousness. “I know I am conscious of my own being.” Like Locke and Descartes he alleges the direct intuition of the self. In the *Principles* he speaks of “a notion of our own minds or spirits.” Since the ideas are copies of other ideas, there can be no idea of the soul; but the “notion is like the spirit that knows it.” We have therefore direct knowledge or *notion* of ourselves in knowing our ideas; we have direct knowledge of something superior to the ideas, an activity whose reality consists not in being perceived, but in perceiving. Indeed, he made the assertion in his *Commonplace Book*, which he began in

¹ Hibben, *Phil. of Enlightenment*, p. 64.

college, that nothing properly does exist but conscious persons. All other things are not so much existences as signs of the existences of persons. One is absolutely certain of what one means by "I."

3. Spiritual substances are sufficient and adequate to explain all ideas. There is no difficulty in explaining the images of our own minds, for our minds control them. But what explains the existence of our perceptions over which we have no control? What substantial support have they if we remove the "material hypothesis"? Suppose I grant that I exist and have control of my imaginative ideas, and that other minds exist and have control of their imaginative ideas, how then, I ask Berkeley, am I to explain the great world of perceptions over which neither I nor other men have control?

Berkeley's general psychological position must be summarized here in order to answer this important question. It is as follows: (1) All things are nothing more than perceptions. (2) All ideas, both perceptions and images, are passive, and must be caused by something in itself active. (3) Souls are active and the cause of ideas. The question then is, What soul is the cause of our perceptions? Perceptions are ideas, are passive, but they are the ideas of whom? Repudiate the material substance, and what is the cause of perceptions?

Perceptions are not originated by me; they cannot be self-originated, because they are passive and not active; they cannot be originated by a material substance, because it does not exist. Their origin must be sought in the infinite spirit, or God. If you will examine the ideas which constitute what we call nature objects, you will observe these significant characteristics about them, to which attention has already been called. They have, as

we have said, a strength, liveliness, distinctness, and orderliness that distinguish them from imaginations. They are God speaking to us in His orderly way. Nature objects are the language of God. The regularity and dependability of the world of nature reveal the character of the Being whose language the world of nature is. They reveal a Being who is intelligent, infinite, omnipotent, and benevolent. The regularity of the changing seasons, the constancy of the heavenly bodies to their orbits, the provision of the earth for man — all the laws of nature are the language of an orderly Being.

Now we see the importance of Berkeley's deviation from Locke in his (Berkeley's) conception of all ideas as passive. All ideas being passive, there must be a cause of them. The only active causes are spirits. I am the cause or perceiver of my own imaginations. I perceive another's movements and know that another person or spirit must be the cause. When nature speaks in its invariable and purposive harmony, I know that an infinite spirit is the cause. We are indeed living in a society of spirits, who speak to one another in their own language.

The doctrine of Berkeley strikes beginners and people who temperamentally cannot understand it, as absurd. The reduction of the trees, sky, etc., to ideas is a theory that has brought down all kinds of ridicule upon it. When Dr. Johnson heard of it, he is said to have stamped his foot upon the ground, and thereby refuted it. Byron is quoted as saying, "If there is no matter, and Berkeley has proved it, it is no matter what he said." Others have asked if we eat and drink ideas and are clothed with ideas. But Berkeley never doubted the existence of material objects, and the point of his theory is missed

if we think that he did. What he denied is the existence of an unknown substance, matter, behind external objects. "The table I write on exists, that is, I see and feel it; and if I were out of my study I should say it existed, meaning thereby that if I were in my study I might perceive it or that some other person does perceive it."

Another question has been asked of Berkeley which goes deeper. If to be is to be perceived, what existence has a tree in the forest that no one has ever perceived. What existence have past events that are forgotten? Berkeley has considered this objection and has answered it. When he says that existence depends upon perception, he does not mean merely my own perception. Berkeley is not what in philosophy is called a solipsist (*solus* and *ipse*), *i. e.* one who believes that nothing exists but himself and his modifications. A thing may have existence in the mind of some one else. If the thing has never been perceived by any human being, it is perceived, if the thing exists, by the mind of God. The modern scientist assumes the existence of matter in the whole universe. Berkeley assumes the existence of a perceiving God. One is the materialistic and the other the religious explanation of the universe.

The Life and Writings of David Hume * (1711-1776). Hume's life bears some marks of external resemblance to Berkeley's. After periods of training that differed very greatly in point of discipline, but were almost the same in point of time, both produced, at about the age of twenty-five, their most important philosophical works.

* Read Rand, *Modern Classical Philosophers*, pp. 326-342; Eucken, *Problem of Human Life*, pp. 420-422; Windelband, *Hist. of Phil.*, pp. 472-476.

Both turned from philosophy to other pursuits—Berkeley to missionary work at the age of thirty-six, and Hume to politics at the age of forty-one. There the resemblance between the two men ceases; for they were antipodal by nature, and animated by different purposes. The enthusiastic nature of Berkeley is in marked contrast with the unimpassioned nature of the Scot. Hume was unimaginative to the last. He was unimpressed by the legends of the border where he lived; he had no love for nature and no appreciation of art. “While Hume’s intellect was imperial, his sympathies were provincial.” Berkeley’s sympathies were imperial and his intellect was in their service. Hume was a man of kindly disposition and of moderate temper, yet he was vain, and interested above everything else in his own reputation. No object seemed worth while to him, unless it made for the improvement of his talents in literature. The failure of the *Treatise* was a blow from which he never recovered. Always afterward he had an eye to popularity, and this is important in making up our judgment about him. All his works after the *Treatise* were written to please his readers and for personal success. Locke the Englishman, Berkeley the Irishman, and Hume the Scotchman came from the same middle class of society, had university training, were engaged in public service, and are to be classed in the same empirical school of philosophy. But they were personally very different kinds of men, and were types, although perhaps not representatives, of their nationalities.

1. *Period of Training (1711–1734)*. Hume was born in Edinburgh and lived there and at Ninewells on the border. He was a student at Edinburgh University

(1723–1726) and studied law the next year. He was in business in Bristol in 1734. In all the occupations of this period he was unhappy.

2. *Period of Philosopher* (1734–1752). From 1734 to 1737 Hume was in retirement in France, especially at La Flèche, where he wrote his *Treatise on Human Nature*. He returned to Edinburgh in 1737 and published his *Treatise* (1739–1740). It was read by nobody and was an absolute failure. So he rewrote Book I in 1748 and called it the *Enquiry concerning Human Understanding*. Hume's full statement of his theory of knowledge is contained in the *Treatise* and not in the *Enquiry*. He rewrote Book III in 1751 and called it the *Enquiry concerning Principles of Morals*, "of all my writings, incomparably the best," and in 1757 he published Book II as an *Essay on the Passions in Four Dissertations*. He became acquainted with Adam Smith in 1740; he published *Essays, Moral and Political*, in 1741–1742, and was a tutor in 1745, because he needed money. In 1746–1748 he became secretary in the English military embassy to Vienna. In 1751, the same year that he was recasting the third book of the *Treatise*, he wrote his *Dialogues concerning Natural Religion*, which was not published until 1779. His autobiography was also published posthumously.

3. *Period of Politician* (1752–1776). In 1752 Hume published his *Political Discourses*, "the only work of mine that was successful on its first publication." In 1754–1761, while Librarian at Edinburgh, he wrote and published his *History of England*. This work was the first serious attempt since the Revolution to give an impartial account of the earlier strug-

gles against the Stuarts. Through it he at last got great fame, and fortune followed in its wake. In 1757 came his restatement of Book II of the *Treatise*. In 1763–1765 Hume was secretary of the English Embassy at Paris, and he was made much of by French society. The thought of the French Enlightenment had advanced far enough to entertain him and his doctrines. Hume met Rousseau at this time. Later Hume was visited by Rousseau in England and was badly treated by the eccentric Frenchman. He says that Rousseau sins at the foundation. Hume was appointed Under Secretary of State in 1766; he returned to Edinburgh in 1769, and died in 1776.

Influences upon the Thought of Hume. The writings of Hume show no erudition, and for that reason it is uncertain what were all the sources from which he drew. He does not mention Descartes, for example, although he wrote his *Treatise* at La Flèche in the shadow of the school where Descartes was educated. It is probable, however, that Hume was influenced at least by the Greek philosophers of the Hellenic-Roman Period, and by Locke. During the years after Hume's student life at the university, he pored over the writings of the Roman Stoics in the library at Ninewells, and he felt the influence of Cicero, Seneca, and Plutarch. Hume read extensively, and he reacted from his reading. He became so dissatisfied with the past that he put it aside, in the belief that the true philosophy had not yet been written. In this reaction from the past he was influenced along the lines of Locke and Berkeley. He admired the advance that Berkeley had made over Locke, and naturally took a further step in the same direction. Hume was also acquainted with the

writings of Hobbes and with the history of the English theories of morals.

In 1740 he became acquainted with Adam Smith, the political economist, and Hume's *Political Discourses* (1752) anticipated Smith's classic *Wealth of Nations*. At this time (1752) he turned with all other Englishmen from the discussion of philosophical to political topics. There are many points of resemblance between Smith and Hume, especially in their ethical doctrine.

Dogmatism, Phenomenalism, and Skepticism. Hume liked to speak of himself as a skeptic, but philosophically speaking he was skeptical only of the dogmatic Rationalism of the Renaissance, which had made unlimited claims for the human reason. Hume maintained in the spirit of the Enlightenment that the human mind deals with ideas and not with reality. Human knowledge has therefore its limits. More consistently than Locke or any one else in the Enlightenment, he tried to show the limits and extent of human knowledge.

Pure skepticism is the denial that there is any such thing as truth; pure dogmatism would be the deductive explanation of all problems from a set of infallible principles. It would be hard to find an absolutely true example of skepticism or dogmatism, for generally philosophical theories are a mixture of dogmatism and skepticism. Pyrrho is often given as an example of the pure skeptic, but Pyrrho, like all other Greeks, never for a moment doubted the existence of an external, material object (vol. i, chapter xii). Spinoza is a fairly good example of a pure dogmatist, but he developed his *Ethics* by means of interpolated principles not in his original assumptions. A thorough-going skeptic would have to be a modern — not a Greek — who would deny

that truth can be known and that things exist. This was not Hume's contention. He affirmed the validity (1) of mathematical reasoning (2) and of matters of fact, and (3) the probability of the natural sciences. Hume may correctly be called a phenomenalist, a positivist, or an agnostic. So far as he maintained that there are some things which the reason cannot know, he is an agnostic. In his affirmation that we can know ideas and only ideas, he is a positivist. In his affirmation that ideas are the only existences, he is a phenomenalist. Are external objects the cause of sensations? Experience is dumb. Have external objects an existence? Experience is dumb. Are souls the substance of our thoughts? Experience is dumb. But mathematics has truth, experience is beyond question, and the workings of nature are probable.

We shall find Hume to be the keenest critical mind of this critical period of the Enlightenment. He is profoundly serious in his examination of the roots of the intellectual life. He is past-master in the art of raising questions. He not only shows that the fundamental theoretical problems are still unsolved, but he also calls to account the hitherto untested assumptions of practical life. But this is criticism, positivism, phenomenism, or agnosticism, and not skepticism. He speaks of his doctrine as like that of the Middle Academy, in contrast with that of Pyrrho. He says that excessive skepticism upsets activity, employment, and common occupations. The conclusions of the intellect never agree with our natural instincts. Every time positive skepticism appears, nature destroys it.

Hume's conclusion as to the practical attitude of the positivist toward life can best be stated in his own words

(*Treatise*, Book I, Conclusion): "Shall we then establish it for a general maxim, that no refined or elaborate reasoning is ever to be received? If we embrace this principle, we run into the most manifest absurdities. If we reject it in favor of those reasonings, we subvert entirely the human understanding. We have, therefore, no choice left, but between a false reason and none at all. Most fortunately it happens that since reason is incapable of dispelling these clouds, nature suffices to that purpose, and cures me of this philosophical melancholy. I dine, I play a game of backgammon, I converse, and am merry with my friends. — No: If I must be a fool, as all who reason or believe anything certainly are, my follies shall at least be natural and agreeable. In all the incidents of life we ought still to preserve our skepticism. Where reason is lively and mixes itself with some propensity it ought to be assented to."

The Origin of Ideas. Locke did not proceed to the construction of his theory of knowledge until he had disclaimed at length his belief in the existence of innate ideas. Berkeley went further and made his polemic against the existence of all abstract ideas. Hume went still further and denied that any ideas existed except those derived from impressions. Locke's attack upon innate ideas was an attack upon unverified tradition; Berkeley's attack upon abstract ideas was an attack upon materialism; Hume made a general attack upon rationalism. The psychology of Hume is thus made simple. It is a cancellation of the factors incompatible with strict empiricism — the factors which he found in Locke and Berkeley. Hume's empirical psychology is simply this: *every idea is the image or copy of an impression.*

What is an impression? Impressions are of two classes: (1) sensations or outer impressions; (2) feelings or emotions or inner impressions. Impressions are never mistaken, because they always have a very lively and vivid character. What is an idea? It is the copy of an impression. An idea should never be mistaken for an impression, because it is fainter and more feeble than the impression of which it is the copy. For example, the sensation of yellow is more vigorous than the thought of yellow; the feeling of anger more vivid than the thought of anger. Impressions are simple and elemental. Can we go back of them and find their origin? We cannot. We receive impressions; echoes of impressions linger as ideas; ideas may be compounded with other ideas. Hume deals in his criticism mostly with the compounding or combining of ideas, but this is the sum and substance of his psychological analysis of our mental life. The following table will help us.

Perceptions (=mental states)	Impressions (=original)	Sensations or outer impressions Feelings or inner impressions
	Ideas (=derived)	Memories or an exact reproduction of an impression or of a combination of impressions Imagination or a combination, separation, and transposition of impressions according to the imagination's own laws.

It should be noted, however, that the above classes are not coördinate according to Hume. Impressions are

prior to ideas, and of the impressions the feelings or inner impressions are "posterior to the sensations and derived from them." Hume is a sensationalist, for the most original of the impressions are sensations.

The Association of Ideas. Since nothing can enter the mind except through the two portals of outer and inner impressions, every idea in the mind is the copy of one or several impressions. How then can there be any such thing as error? Error arises from the understanding and imagination in their manipulation of the impressions — from the faculties of the mind combining, separating, and transposing the impressions and their memories. An idea resulting from such transposition may and often is referred to an impression different from the one of which it is the copy.

What does Hume mean by the faculties and powers of the mind? He does not mean that the mind with its functions exists as a reality, since all that exist are impressions and the copies of impressions or ideas. Hume means by mental faculties and powers the various modes by which ideas combine. Hume makes no distinction between memory, imagination, judgment, conception, etc., except (1) as different groupings of ideas and (2) as accompanied by different feelings. *The whole mental life and the faculties of the mental life are nothing but an association of ideas.* Isolated ideas are explained as copies of isolated impressions; and from these ideas are derived groups of ideas which we call trains of thought. Why do ideas group themselves together? The only answer is that it is the nature of ideas. Hume frequently speaks of these associative relations as "the manner of conceiving ideas." He also says that there is a "gentle force" or "determina-

tion" of the ideas to relate themselves with other ideas. Given the impressions and their relations, and Hume will explain the whole knowing process. Associative relations take an important place in Hume's theory, but some critics say that they are interlopers; that he has introduced them by a back door; that they are not mentioned in his psychological inventory.

But to Hume there is nothing mysterious about the association of ideas. They are combined, transposed, augmented, and diminished according to fixed rules under mechanical laws. Their relationship takes place without freedom. Impressions occur in the way they happen to occur. Ideas combine in the way they happen to combine. Relations between ideas are accidental and external. There is only one quality of ideas that does not depend on its accidental relation to other ideas. This is the quality of non-contradiction. This is the necessary property of an impression. An impression must be what it is, and cannot be conceived as having properties contrary to its own nature. The quality of identity in an impression is intrinsic and necessary.

According to Hume, there are three fundamental ways in which ideas associate, called the three laws of association. (1) There is *the law of resemblance* or contrast, by which the occurrence of a thing calls up a similar thing or its opposite. Mathematics is based upon this law of the resemblance, the contrariety, and the quantitative relations of ideas. (2) There is *the law of contiguity in time and space*, by which things happening together in time and space are recalled together. Upon this law are based the descriptive and experimental sciences. (3) There is *the law of causation*, upon which religion and the metaphysics of the world of

nature are based. The question with Hume is, How is he to explain all these laws of association as derived from impressions? If they cannot be derived from impressions, then his theory that all knowledge is derived from impressions goes to the wall. The Rationalists and even his predecessors, Locke and Berkeley, had conceived mathematical propositions and causation as underived and in the nature of things. If Hume is to establish his doctrine of complete sensational empiricism, here is his test.

These associations, and not isolated impressions, are the objects of human interest, inquiry, and investigation. Hume makes a further reduction of associations by his well-known classification of them as either "relations of ideas" or "matters of fact." Associations of contiguity and associations of causation are "matters of fact," while associations of resemblance are "relations of ideas." Furthermore, Hume looks upon associations of contiguity as those of outer impressions, associations of resemblance as those of inner impressions, while associations of causation are not what they are alleged to be, but are derived from some inner impressions.

Objects of Knowledge	Matters of Fact	1. Contiguity association	Outer impressions	Descriptive Sciences
		2. Causation association ¹	Inner impressions	Metaphysics
	Relations of Ideas	3. Resemblance association	Inner impressions	Mathematics

The Association of Contiguity. This is the most elementary of the three classes of association, and concerns the spatial and temporal order in which impressions

¹ Causal events are to Hume merely *alleged* matters of fact.

come to us. Two impressions come at the same time or in succession, and when one of them is remembered, the other is likely to be remembered also. We see a man and hear his name; when we remember the man's face, we may remember his name also. Hume maintains that this association of succession or coexistence is given with the impressions themselves. It is the order of the *outer impressions*. We perceive the order of the outer impressions with the same certainty that we perceive the contents of the impressions. *This is the only certainty we have about "matters of fact,"* — a certainty of the exact order of our immediate outer impressions. We know the order in which our impressions do occur, but, as we shall see, when we argue from this that our impressions must recur in the same order we are involved in a fallacy. Any order may recur. The fact that the sun rises in the east to-day does not make certain that it will rise in the east to-morrow. It is only a matter of probability, however many times repeated. There is no certain science of "matters of fact."

The Association of Resemblance. This is a clear and distinct association which is given with the impressions. When we have an impression, we see intuitively its similarity or difference to other impressions, and the degrees of likeness and unlikeness. The face of one man reminds us of another man, or we contrast it with a brute's face. *This association concerns only inner impressions*, while the association of contiguity concerns outer impressions. This has to do with the "relation of ideas," while the association of contiguity has to do with "matters of fact."

1. **Mathematics.** But there is this difference between the association of resemblance and that of con-

tiguity — upon resemblance is founded a demonstrative science. This is mathematics — the sole demonstrative science. The subject-matter of mathematics consists of the possible relations between the contents of our ideas — the possible relations between our inner impressions. These relations are intuitively known by us, and out of them we get a science of complete certainty. We make a comparison between the magnitudes in the contents of ideas, and we analyze their regularity. This is mathematics, and it is a perfectly legitimate science. Because it confines itself to the relations between ideas, and has nothing to do with “matters of fact,” it can be a demonstrative science. All mathematical knowledge is restricted to the study and verification of ideas, and has therefore nothing to do with the external world.

2. **The Conception of Substance: Hume's Attack on Theology.** But the association of resemblance has been made the basis of a common illusion. It has been made to transcend its proper sphere of a relationship among inner impressions; and resemblance between ideas has been taken by people generally to mean metaphysical identity or substance. It has been transformed from a relationship between ideas to a relationship between “matters of fact.” Now substance is evidently not an association given with the impressions, like their temporal and spatial order in the association of contiguity, nor is it mere impression of resemblance. Substance is the conception of an unknown, indescribable something back of impressions. There is the conception of the material substance or matter, and the spiritual substance or the soul. How did such illusory conceptions arise? If Hume rejects them as matters of real knowledge, he must neverthe-

less explain their psychological origin. The illusory idea of substance originates from the similarity of the frequent conjoining of certain impressions. The impressions — sweet, rough, white, etc. — occur together so often that the imagination creates the conception of the substance of sugar behind them. This arises not from the first experience, but after the association of impressions has been observed a large number of times. From the frequent association of ideas arises the *feeling* of their necessary coexistence. Thus do we come to have the idea of a material substance.

Hume evidently follows Berkeley in his criticism of material substance. But Berkeley went only halfway. Berkeley had found that bodies were only conjunctions of sensations, and he had rejected as meaningless the unknown substance behind them. He did not see that the same attack could be made upon spiritual substances. Berkeley's argument against the substance of the cherry could be used against the Ego or the Soul. Have I the impression of my Ego? Can I touch it or see it? The simple test shows that I know nothing about it, and I cannot affirm whether or not it exists. But if the conception of the Soul has no reality as an object of knowledge, how can it be psychologically explained? How does it arise in the mind? The idea of the Soul is due to the frequent reappearance of the same trains of thought in my mind. Their similarity gives rise to the feeling that a metaphysical identity, or Soul, exists behind them.

The Association of Causation: Hume's Attack on Science. Among the many traditional conceptions upon which Hume turned his critical examination, that of causation occupies the most of his attention. He dis-

cusses it both in the *Treatise* and in the *Enquiry*. He is the first philosopher since Aristotle to give it comprehensive treatment. He saw that all philosophical, theological, and indeed scientific knowledge rests upon this conception of causation. It was accepted without question by the Scholastics of the Middle Ages, the Rationalists of the Renaissance, and the scientists of his own time. If the conception is valid, Hume's criticism goes for naught; for "by means of that relation we can go beyond the evidence of our memory and senses." In that case what becomes of Hume's psychological analysis that all knowledge consists of impressions and ideas? And if Hume's psychology falls, all his criticism of the spiritual and the material substance falls also. Upon the validity of the concept of cause depend many of the scholastic arguments for the existence of God, whose existence we can demonstrate although He is not an object of sense impression. Imagination can then go on unrestricted; for God is accepted not only as cause, but as first or uncaused cause. Descartes, Leibnitz, and even Berkeley and Locke had accepted the causal argument for the existence of God, although the latter two had pretended to restrict knowledge to sense-perceptions and ideas. Again, the causal concept has been the foundation for the belief in a functioning soul behind the mental and physical activities of a human being; and on the same causal concept man has argued from sensations to their material substrate. All this is unwarranted and unrestricted knowledge because it "goes beyond the memory and senses." Not only theology, but science itself has gone "beyond the memory and senses." Hume dares to doubt the certainty of the causal principle even in scientific knowledge. Is there

any necessary connection among events so that with certainty we can predict the occurrence of one event if another is given? Is there in nature and history any causal law so binding that every event is a necessary result of what has gone before and a necessary cause of what will come? The question of cause is, therefore, paramount with Hume. If he is successful in impeaching cause as he has been in the case of substance, scientific theory must fall with theological dogma.

In his review of the conceptions of time and space (association by contiguity), Hume had found succession to be a quality of impressions and to be given with them. But that is all that can be said—the relation is one of time order, but not a relation that is necessary. The outer impressions happen to occur thus and thus; they need not have occurred thus, and may never occur in this order again. This temporal order is not by any means a causal order. The idea of cause is that of power transferred, but we have no impression of power. Impressions come as sequences, not as consequences or as powers. Sequences of impressions are the only “matters of fact”; consequences are not “matters of fact.” They must, therefore, be only “relations between ideas” and have no objective reality. From Hume’s point of view this is sufficient to show that cause is not valid and real.

To deny that we have the concept of cause would, however, be nonsense. We do have the concept, and how is its psychological origin to be explained? How does the idea arise? It does not originate (1) as an *a priori* concept, *i. e.* by an analysis of ideas, nor (2) as an outer impression, *i. e.* a sensation, nor (3) as memory, since memories are images of impressions. The

idea of cause originates from an inner impression — a strong and lively feeling connected with the imagination. But how does it happen that the feeling is so strong that it makes us believe the idea, with which it is connected, is a reality? The feeling does not arise from a single instance of conjunction of two impressions, but from the conjunction of two ideas repeated many times. *The belief in cause is a feeling originating in the constant conjunction of impressions.* This explains why the ideas that fire will burn, that poison will kill, that water will wet — are so lively. The conjunction occurs many times, and an inner necessity or compulsion arises to imagine the second impression after the first. Given the first idea, we learn to expect the second. Repetition produces nothing new in objects, but it produces in the mind a new feeling to pass from one idea to the idea usually attending it. Necessity exists in the mind and not in the objects.

The Extent and Limits of Human Knowledge. What remnants of knowledge remain after Hume has applied his destructive criticism? His critics would answer that, if Hume had been consistent, no knowledge whatever would remain. Upon the basis of pure positivism, that all knowledge is composed of impressions and their copies, knowledge is an impossibility. But he introduced an additional element, "relations," that made knowledge possible because it afforded synthesis and allowed distinctions.

Taking Hume's doctrine as it stands, his results are these. There are two classes of sciences, the formal and the empirical. The formal includes logic and mathematics, and consists of knowledge of relations between ideas. Such knowledge has certainty and validity. Em-

pirical sciences consist in knowledge of matters of fact. Such knowledge never amounts to more than probability. There is no certainty or demonstration in natural science. Its results call forth not conviction, but belief. Beyond these subjects we have no knowledge whatever. Metaphysics and theology are only fictions. Beyond impressions and the copies of impressions we can make no assertions. The tendency of thought to trench beyond its own territory is the cause of all our metaphysical difficulties. It tries to do what it was not intended to do, and the result is abstract ideas. Reason and the relation of resemblance give us the erroneous idea of spiritual and material substance ; imagination and the relation of cause give the erroneous idea of the fundamental principle of nature.

Hume's Theory of Religion and Ethics. Hume is so true an empiricist to the end that he is a remarkable exception among the philosophers of the Enlightenment. He alone among philosophers shows the historical sense in the application of his positivism to religion and morals. In general the Enlightenment took no account of the past ; in this Hume differs from his contemporaries.

Hume was the destroyer of deism because he advanced historical evidence against deism. Deism had three principles : that religion is the object of scientific investigation ; that religion had its origin in the reason ; and that " natural religion " is the oldest form. Hume agreed to the first proposition, but he revealed his historical instinct by showing that religion did not originate in the reason, but in the feelings ; and that not " natural religion," but idolatry, etc., is the oldest form. Furthermore, he stood almost alone among philosophers of the period in building ethics upon the feelings rather than

upon the intellect. The ethical motives of man are pleasure and pain, and not an idea of the reason. Hume's historic sense led him to this conclusion.

Both morals and religion should be empirically investigated. As in science, so in them the most cogent conclusions are only probable and not intuitive. Our moral activities are under the same kind of law of cause that exists in the world of nature-phenomena. The will is determined by the feelings, and the reason is the slave of the passions. Our moral judgment is based on the feeling of sympathy (Adam Smith). It is practically probable that there is a purpose in the world and therefore a God. But this cannot be established. On the same principle of probability the world may have grown up mechanically or by chance. Religion is naturally reasonable enough, but its doctrines cannot be proved.

The Scottish School. This school represents in Great Britain the reaction from the sensualism of the Enlightenment. The Scottish School was the British reply to Hume, just as Kant was the German reply. They were the late eighteenth century reactions in two countries to the Enlightenment. The teaching of Kant was, however, also the beginning of a new movement and a new period. The Scottish School has no such importance.

Thomas Reid (1710-1796) was the founder. Reid admitted that Berkeley and Hume drew legitimate conclusions from Locke's general assumption that the objects of thought are not things, but ideas. Therefore Reid maintained that Locke's position must be given up. Still empiricism remains tenable and must be applied to the phenomena of mind. What are the data of consciousness? Not individual ideas, as Locke said, but complex ideas or judgments. The elements will be discovered

later by analysis of these complex states which are first given. The mind is not a blank piece of paper upon which simple characters are first inscribed, and then later the understanding introduced to form judgments and the reflection to add belief in the existence of objects. Our knowledge starts rather from judgments, which involve certain original truths or "natural judgments." Mankind possesses the faculty of "common sense," and this faculty makes these truths a common possession. Among the principles that "common sense" includes are self-consciousness, the reality of objects perceived, and the principle of cause.

The Scottish School called attention to the importance of self-observation. The members of the school made their attack upon sensualism from the point of empirical psychology. Philosophy became in their hands the perfecting of psychology as a science of inner observation. Thus they were in accord with the school of the Enlightenment, although opposed to its sensualistic outcome. The prominent members of the school were Reid, Dugald Stewart, Brown, and Sir William Hamilton.

CHAPTER IX

THE ENLIGHTENMENT IN FRANCE AND GERMANY*

The Situation in France in the Enlightenment. The historian of the French Enlightenment has to take account of the reign of two kings; that of Louis XIV (1643-1715); and that of Louis XV (1715-1774). Together they cover the long period of one hundred and thirty-one years. The reign of Louis XV marks the actual development of the Enlightenment, while that of Louis XIV contains the causes. The long reign of seventy-two years of Louis XIV had been an absolute, arbitrary, and personal government. It had been an age unsurpassed in literature and eloquence, but also an age in which all those subjects that did not redound to the glory of the church were suppressed. It had been the age of Molière, Corneille, Racine, La Fontaine, and Fénelon; an age when art was encouraged, but also an age in which political and philosophical originality would not presume to breathe. Between Descartes' death in 1650 and the death of Louis XIV in 1715, one finds a single philosopher, Pierre Bayle, and he had to leave France. The Newtonian physics was not accepted in France until 1732 — forty-five years after its publication in England. Upon the death of Louis XIV the artistic glories of his reign lost all their value for the nation. In their place was set the problem of the material misery of the nation, which had been caused

* Read Eucken, *Problem of Human Life*, pp. 415-420.

by the long wars and the extravagance of paternal government.

The reign of Louis XV seethes with the struggle of social forces. It is a period in which the individual is striving to gain his rights under the institutions that have so long repressed him. The development of the French Enlightenment is identical with the struggle for political liberty. In no other period of history—except perhaps the Age of Pericles—is the history of philosophic thought so intimately connected with political history. The fifty-nine years of the reign of Louis XV are filled with exciting events which interest both the philosopher and the historian. The French Enlightenment is the “reaction against that protective and interfering spirit which reached its zenith under Louis XIV.” With Louis XV the magnificence and the utility of ecclesiastical and political absolutism could not be maintained. For the hierarchy of the church was unable longer to keep up its claim of independence and morality; and the State was rapidly exhausting its power by exhausting its financial resources. Each event in the history of France in the eighteenth century had therefore two aspects—each led to the Revolution, and each was a step in the development of the Enlightenment of the individual. The pioneers in the movement could not have been conscious of the end to which their criticism would lead; but to us looking back upon the century the result seems inevitable. A comparison with the situation in England is interesting. While in England the political and ecclesiastical institutions were so elastic that they could without disintegrating absorb the movement of the Enlightenment, and while they were so little bound to traditional institutions that the growth

in individualism would be constitutional, the situation in France was exactly opposite. (1) In France the church and the political institutions had become inelastic bodies under Louis XIV. They had reached the limit of their development. So deeply rooted in absolutism and special privileges were they that they were not open to innovation or reform. During the reign of Louis XV the only question was, which would be crushed — the new individualism or the old institutions. No compromise was possible. The institutions, having survived their usefulness, gave way. (2) In the next place the French church and state had for many years been identified with oppression and tyranny, while the English people had within a century gained many needed reforms by beheading one king and forcing out another. Consequently the English government of the eighteenth century was identified with the liberty of the individual. In England political and religious speculation followed and did not precede political reforms. In France the opposite was true. To the mind of the French people the church represented only superstition, and the state only profligacy and tyranny. The more they seemed to support each other in one social structure, the more rapid, virulent, and excessive would naturally be the reaction against both when once individualism got a footing.

The result was that while in England the Enlightenment always remained critical and negative, in France it became an obstinate and positive dogmatism. Behind French criticism was developing a philosophical creed. The French Enlightenment was a social cause and a self-sustaining idea. The French philosophers of the eighteenth century, on the whole, were not superior men intellectually, for they were inclined to make the small

look large and the large great. But although their perspective was inaccurate, they had an enthusiastic faith in progress and humanity.

The English Influence in France. Louis XIV and his two predecessors had made Paris the intellectual centre of Europe, and up to 1690 it had no rival. The French language had taken its place beside the Latin as the language of science. The circle of scientists existing just before and at the beginning of Louis XIV's reign had its equal nowhere in Europe. We remember how Hobbes found Euclid in Paris, Locke spent four years at or near Paris, Leibnitz gained there all his mathematical erudition and training. During the seventeenth century Paris was the centre of scholastic influence, and this is seen directly or indirectly in the writings of all seventeenth century philosophers. The English had taken their cue from the French; but on the other hand, it is doubtful if as late as the death of Louis there were a half dozen Frenchmen that knew the English language.

About the time of the publication of Locke's *Essay* the intellectual centre of gravity began to move from Paris to London. The founding of the Royal Society in Oxford in 1660 was the beginning of the organization of British scientific influence. Newton's physics (1687) then began to supplant the Cartesian physics, and Locke's psychological doctrines the dogmatism of the Rationalists, among the thinkers of western Europe. Newtonian physics and English empiricism became the scientific watchwords of the eighteenth century; and although the French were late in accepting them, it is said that at the end of the Enlightenment there was no cultured Frenchman who could not read English. We

find that such notable Frenchmen as Voltaire, Montesquieu, Buffon, Brissot, Helvétius, Gournay, Jussieu, Lafayette, Maupertuis, Mirabeau, Roland, and Rousseau visited England during the period from the death of Louis XIV to the Revolution. Poets, mathematicians, historians, naturalists, philologists, philosophers, and essayists all agreed to the necessity of studying the language and people on whom their fathers had not deigned to waste thought except in contempt.

But perhaps the political motive was quite as strong as the scientific in turning the French of the eighteenth century toward England. The English government was the example of political liberty of that time. The rising inquisitive thinkers of France had no alternative but to turn to free England for spiritual support against their own decrepit tyranny. The first French visitors were amazed at English prosperity, even though the crown had decreased in power — amazed at the liberty of the press and Parliament, amazed at the control of the revenues by the representative body. England thus became the school for all the thinkers of Europe, and through her literature taught the lesson of political liberty first to France, and then to all Europe.

The Two Periods of the French Enlightenment. The eighteenth century divides itself in France much the same as it does in England. There are two periods: the first extending to the middle of the century, when the Enlightenment of the individual is thought to lie in intellectual cultivation; the second, when his salvation becomes social and practical. The first period is dominated by Voltaire, and advanced by Montesquieu and the Encyclopædists; the second is dominated by Rousseau, and results in the Revolution.

The two periods have a common fundamental motive, although the means used are radically different. Both represent a gradual progression toward the elevation of the individual in his reaction against the institutions of the seventeenth century. But the first was an intellectual Enlightenment and all that this means, while the second was emotional and social. The first was aristocratic, while the second was democratic. Yet the whole movement was a gradual filtering of the doctrine of individualism from the upper to the lower classes. It naturally took the form, first, of intellectual culture, and then of an appeal to spontaneity. The intellectual theories of the first period were bound to find practical expression in the second. In the first period the champions of the ancient monarchy were forced to defend it on their opponents' own ground — that of rationality. In the second period, the monarchists had to change their battleground and make some practical reforms. In the first, the attack was made principally on the church, in the second on society. While the attack on the state began early, it attained significance not until the middle of the century.

The Intellectual Enlightenment (1729–1762). Voltaire, Montesquieu, and the Encyclopædists. The first representatives of the French Enlightenment were Voltaire and Montesquieu. Voltaire went to England in 1726, and Montesquieu in 1728, and they both returned to France in 1729. Voltaire published his *Letters on the English* in 1734 and his *Elements of the Philosophy of Newton* in 1738.¹ Montesquieu had published a fierce

¹ Voltaire's *Letters on the English* were written in 1728, published first in London, and appeared in France in 1734. His *Elements of the Philosophy of Newton* was published in Amsterdam in 1738, but was not allowed to be published in France until 1741.

invective against the political institutions of France in 1721, a discussion of the decadence of the Romans in 1734, and his famous *Spirit of the Laws* in 1748, selling twenty-two editions in eighteen months. Voltaire introduced and espoused the religious theory of Locke in deistic form, and Montesquieu expounded Locke's theory of government. Their writings were widely read by the upper classes, and this theoretical revolutionary movement against all existing institutions got momentum about 1735.

The aim of this movement was entirely aristocratic. The solution of the existing predicament in France lay for them in the greater care of the masses by an enlightened tyranny. The dualism of the classes was always assumed. The few are to be cultured; for them reason is to take the place of dogma. The masses are not amenable to reason, have no capacity for education, and for them religion suffices. To free the individual from terror of the supernatural, to release his morality from Jesuitical dominance, to give him intellectual independence of state and church — this was the working idea of the intellectual Enlightenment. Thought should be free, and the conscience of the individual should be untrammelled, because the reason is a sufficient guide. Being thus rationalistic, the movement was aristocratic. A new aristocracy should be substituted for the old — an aristocracy of the cultured instead of the corrupt and ignorant, who were then the dominant French classes in church and state. The illuminati should participate in the existing political privileges.

Voltaire (1694–1778).* Voltaire was a deist when he went to England, and he was therefore very much

* Read Ueberweg, *Hist. of Phil.*, vol. ii, pp. 124–125.

impressed by the prevalent English deism. Among the English deists, Bolingbroke had the greatest influence over him, and he was the "direct progenitor of Voltaire's religious opinions." Bolingbroke's light and supercilious infidelity of the man of the world was suited to Voltaire. A universal genius, Voltaire wrote on every subject; but "not one of his books but bears marks of his sojourn in England." He read with familiarity all the English philosophers, — Hobbes, Berkeley, Cudworth, Locke; but always returning to Locke. "Harassed, wearied, ashamed of having sought so many truths and found so many chimeras, I returned like a prodigal son to his father and threw myself into the arms of that modest man who never pretends to know what he does not know; who in truth has no enormous possessions, but whose substance is well assured."

In his *Philosophical Letters* Voltaire makes invidious comparisons between Locke's Empiricism and Descartes' Rationalism, between English Deism and French Catholicism, and between the English government and the French government. Toward Christianity, as he saw it in his own country, his hatred amounted to fanaticism. His strictures were so scathing that Christians have looked upon him as an atheist. He was, however, a deist, who believed that, while we can know God's existence, we cannot know his nature. He was fond of bringing all dogma under criticism, and "while he denied nothing, he cast suspicion upon everything." He called himself the "ignorant philosopher." To him atheism was preferable to dogma and superstition. His passion for invective against the French clergy was so great that his constructive statements about God and immortality were cold and impersonal.

The *Encyclopædists*.* In modern times the French have been unequaled in their encyclopædias and dictionaries. The famous *Encyclopédie* or *Dictionnaire Raisonné* was what its name implies. It was published in seventeen volumes during the years from 1751 to 1766, and had an addition of eleven volumes of plates (1766–1772). Thirty thousand copies were printed in the first instance, and in 1774 it was translated into four foreign languages. The moving spirit and editor-in-chief was Diderot (1713–1784) and his chief assistant d'Alembert. They were assisted by many notable French writers like Voltaire, Rousseau, Grimm, von Holbach, etc., who wrote separate articles. There was a host of unsolicited contributors. Two years before the *Encyclopædia*, Buffon had begun to publish his *Natural History* in forty-three volumes, the last volume appearing in 1789. The *Encyclopædia* had two predecessors, — Bacon's chapter on *Experimental History* and Chambers's *Encyclopædia*. The articles in the *Encyclopædia* were presumably scientific explanations alphabetically arranged, such as would appear in any work of the sort. Frequently they were disguised attacks upon existing French institutions. Often a detailed description, as on the subject "Taxes" or "God," would reveal existing French conditions. As Comte says, "The *Encyclopædia* furnished a rallying ground for the most divergent efforts without any sacrifice of essential independence, and made a mass of incoherent speculation appear like a coherent system." The two successive periods of the movement of the Enlightenment unite in the *Encyclopædia* against the common enemy of authority.

* Read Morley, *Diderot*, vol. i, ch. v, pp. 113–171.

There are two things to be noticed in connection with the *Encyclopædia*: the men who wrote it went much further toward individualism and skepticism than did Voltaire; and the *Encyclopædia* reached a wider circle and different classes than did the works of Voltaire. Instead of the deism of Voltaire we find contributions from skeptics, atheists, and materialists,—men who are becoming more negative in their opinions as the century advances. The thorough-going agnosticism of the Encyclopædist group reached a point where it ceased to be a philosophy. Diderot had said that the first step in philosophy is unbelief, and his associates went so far as to think that unbelief is all of philosophy. Their extreme sensationalism, naturalism, and materialism sometimes appeared in disguised form in the *Encyclopædia*, but more often in independent writings. The *Encyclopædia* became the source of information for everybody. It spread information among all classes and undermined their reverence for French institutions. The result was that what had been sacred to the court and the laborer because it was traditional, now became the object of scorn to all.

The most profound of the sensationalists of this time was Condillac (1715–1780),* who does not, however, appear to be connected with the *Encyclopædia*. He published his *Treatise on Sensations* in 1754, which reduced Locke's psychological analysis to a pure sensationalism. The well-known figurative statue endowed only with the sense of smell was conceived by him. He introduced Locke's psychology into France, whence it was carried into Germany.

* Read Rand, *Modern Classical Philosophers*, pp. 347–375.

The Social Enlightenment (1762–1789). The second period of the French Enlightenment begins with the publication of Rousseau's *Contrat Social* in 1762 and culminates in the Revolution. The influence of Rousseau dominates the second period as that of Voltaire dominated the first. Voltaire had never aimed at a social revolution. His objective point was to reinstate the understanding, to emancipate the individual by self-culture and by freedom of thought. He was not historian enough to see that he could not revolutionize intellectual France without pulling down the social structure. He did not realize that in striking at the tyranny of the church he was dealing a fatal blow at the structure of French society. The literary fencing between Voltaire and the adroit churchmen might have been amusing, had the issue not been so serious. But although superficial and vain, Voltaire was downright in earnest. At one time it seemed as if the intellectual Enlightenment would work itself out in the church. But the causes of the revolt were too deeply social, the malady against which Voltaire was aiming was too vital; and besides, at that moment attention was being directed to the character of the State itself.

Rousseau (1712–1778).* Rousseau began at the point where Voltaire left off. He was under the influence of Voltaire at the first and received from Voltaire his original productive impulse. But the concrete right of individuals, and not their abstract intellectual freedom, was what appealed to Rousseau. Strict moderation and literary freedom were too negative, half-hearted, for a reformer of Rousseau's type. Public opinion was not to be found in Versailles, as Voltaire thought, but in the streets of Paris. The Revolution

* Read Eucken, *Problem of Human Life*, pp. 423–433.

then came to a head, and we find the schools of Voltaire and Rousseau locking horns. Voltaire's theory of moderation was represented in the Constituent Assembly and the upper and middle classes, while Rousseau's radicalism was introduced in the Convention and fully expounded in the sections of the Commune of Paris which attacked the Convention. History shows how impossible the aim of each school was, and how the contest had to be fought over again in the nineteenth century.

Rousseau lived a wandering and adventurous life, full of hallucinations and self-created trouble. He made many friends, only to quarrel with them. He was half insane, and his career inspires both disgust and admiration. His numerous works fill twenty-two volumes, the most important ones being two prize essays published in 1750 and 1773, which represent the negative side of his doctrine; *Héloïse*, 1761; *Emile*, 1762; *Le Contrat Social*, 1762; and his *Confessions*, which contain his constructive thought.

Rousseau was at first a contributor to the *Encyclopædia*, but at heart he cared nothing for the diffusion of knowledge and art. He did not understand the comprehensive intellectual ambition of Diderot; he resented the utilitarianism of Helvetius and the materialism of Holbach. When he wrote his prize essay in 1750, he suddenly perceived how absurd the intellectual Enlightenment was amid the distressing social state of France. He turned against both the existing order and the would-be intellectual reformers. The temporal order of things was to him awry. Study, knowledge, and cultivation were to him only a gloss over the deep-lying degradation. Society, as it is constructed, is artificial, and all organization is a tyranny. God exists, and He

is good. Man was good until civilization and art invaded his simplicity, corrupted his virtues, and transformed him into a suffering and a sinful being. Rousseau's call was that of anarchism. It was a condemnation of the entire past. Sweep all the so-called civilization away, and level inequalities. Go back to nature; and in the simplicity of that idyllic state let children grow up undirected except by their own uncorrupted instinct, — that "immortal and celestial voice."

In an age tired of oppression and corruption Rousseau struck a sympathetic chord which made the intellectual Enlightenment sound false. His contemporaries did not inquire into the motives of the mean lunatic. They did not then see that he was a doctrinaire holding up an unpractical ideal in contrast with their present state. He alone in all France was the one to appeal to man's self-respect. He alone appealed to the only motives that will result in action, — the human emotions. His plea was for every Frenchman, and his words for the unfortunate were given with such eloquence that the fortunate were compelled to listen. They were a majestic language of wide compassion and sympathy. He saw in the French monarchy the greatest misery for the greatest number, and no one of its supporters appeared to the people so generous and true as he. His influence not only upon his own time but upon the nineteenth century was extraordinary, and some have said that he is the greatest modern. At all events he sounded the keynote of our own civilization, especially in art, literature, and education; for he showed the fundamental correlation between Nature and the passions. Rousseau taught a sentimental deism, in which sentiment is the essential part.

The Revolution was the natural consummation of the Enlightenment in France. The immediate issues out of which it grew were the practical ones of finance, legislation, economics, and policy. The growth in the physical sciences (beginning 1760), in the study of political science, in the theory of government, as well as the financial distress of the French government, the success of the American Revolution, the advance of the French middle class to a position of power, the foolish and half-hearted measures of the French statesmen — all these were factors that at the end brought on the crisis. Yet the words of Rousseau, falling on fruitful soil, were the real cause. In the years immediately preceding the Revolution there was a world-wide agitation, an enthusiasm for nature, an exaltation of man, and a contempt for the age and for the society then existing. There was a vague presentiment of impending change, which most people were prepared to welcome. Thinkers were full of illusions. Even such despots as Frederick the Great, Catherine of Russia, and Joseph of Austria affected a radicalism, and Spain, Portugal, and Tuscany, as well as England, France, and Germany, were moved with great humanitarian sentiments. The debate was universal as to the condition of the human race. Rousseau was the eloquent expression of this world-wide movement.

The German Enlightenment (1740–1781). As the Enlightenment in France, so the Enlightenment in Germany had its introductory period. The history of Germany from the end of the Thirty Years' War (1648) to the publication of Kant's *Critique* (1781), or 133 years, is divided into two periods at the year 1740, when Frederick the Great was crowned. The period from 1740 to 1781, or forty-one years, is the German

Enlightenment. The period from 1648 to 1740, or ninety-two years, is introductory to the Enlightenment, and, as in France, a period of absolutism.

The Introductory Period (1648-1740). Absolutism. The spirit of absolutism, both politically and intellectually, dominated Germany from the end of the Thirty Years' War (1648) to the crowning of Frederick the Great (1740). Absolutism dominated Germany and France a full one hundred years. There are some differences between the two countries, however. It began and ended in Germany about thirty-five years later than in France. Again, in France it grew in splendor from the efforts of Richelieu and Louis XIII (1610) to the great protective idea of Louis XIV, who for seventy-two years ruled as absolute political and intellectual dictator. In Germany, on the other hand, it was a spectre hovering over a disintegrating and decaying nation once known as the Holy Roman Empire, but since the Thirty Years' War only a collection of states under a nominal central government. The idea of absolutism prevailed none the less, for within the several states each monarch was dictator as to the religious, intellectual, and political opinions of his subjects.

Politically and socially the Holy Roman Empire was in striking contrast to the power and splendor of contemporaneous France. The Thirty Years' War had left the empire absolutely desolate. The land was impoverished, the nation disrupted, and the population reduced from seventeen millions before the war to five millions after the war. The war had been a generation long and it had degraded the nation. It had settled nothing. It left the people poor and the princes absolute within their respective states. The upper classes

everywhere, except at Weimar, had become profligate. The universities were reduced to a position below what they were in the Renaissance. The prince of each state established the religion for his state, so that practically no religious liberty had been gained. Lutherans, Calvinists, and Catholics were exhausted, but were still antagonistic. There was no moral activity among the Orthodox; often they set their own immorality up to prove the absolutism of their respective dogma. The war left Germany politically prostrate and intellectually stagnant.

In the years that follow the Thirty Years' War it is possible to detect movements that are the beginnings of the Enlightenment. It is an important point that Germany was resuscitated from sources that lay within her own civilization. The French Enlightenment and the intellectual freedom of modern France were due largely to the influence of foreign ideas from England. The seeds of the German intellectual revival were developed on her own soil. Those beginnings are (1) the rise of Prussia; (2) the early German literature; (3) the Pietistic movement; (4) the transformation of Leibnitz's rationalism.

1. The rise of the little electorate of Brandenburg to the powerful kingdom of Prussia in 1740 was the political basis of the Enlightenment that followed. No state had suffered more during the Thirty Years' War. The entire population was reduced to less than a million, and Berlin, the capital, had only three hundred citizens. The government was as harshly absolute as elsewhere. The rights of the citizens were entirely taken away by the three princes who ruled over Prussia between 1648 and 1740. But a powerful kingdom

was built up, with a strong and patriotic army. It extended its dominions and was a refuge for Protestants, who fled to it in large numbers. It came to be feared by all the German states, and in the latter part of this period it had to be reckoned with in the councils of Europe. Itself an absolutism, it was the vigorous political body that alone could destroy the traditional absolutism of the Hapsburgs and the Holy Roman Empire. Puffendorf declared that the old Empire with its feeble sovereignties was a monster. It was a monster spectre — a stubborn political idea that hovered over Europe. Frederick the Great's mission in the next period was to destroy it.

2. The meagre German literature of this early period was also an important factor in the development of the Enlightenment. Poor, indeed, it was. Never was German literary production so low. Before the war the Germans had taken Greek as their model; after the war they copied the language, manners, and methods of the French of Louis XIV. The early literature was ruled in the same spirit of absolutism by Opitz until 1700, and after him by Gottsched, especially in the years from 1730 to 1740. It was for only a small fraction of the people, and was in the interests of the depraved aristocrats of the courts. Such pedantic absolutism was the basis of the reaction in the next period of the literary Enlightenment, which proved the redemption of Germany.

3. The Pietistic movement was the third factor that went to make up the German Enlightenment. It was a positive expression of religious individualism, similar in its position to the Prussian state in its independent growth in politics. It was a religious movement outside

the church. Its two leaders were Spener (1635-1705) and Francke (1663-1727). The movement entered Germany from the Netherlands; and the members were devout and holy men consecrated to good deeds. The Pietists were not heroic figures like the early Lutherans, but they stood for what Luther had in his early period taught. They opposed ecclesiastical formalism, and they proclaimed the need of personal regeneration and of the universal priesthood. They stood for religious freedom. They made no onslaught upon the church, but they were content with saving individuals. Pietism united at first with Rationalism — of which we shall next speak — against orthodoxy, but when the two had won their victory they quarreled. Although the Pietistic movement later became itself conventional, it furnished the ground for the religious freedom of the Enlightenment. During these hundred years of German religious absolutism, the Pietists represent the moral activity among religious bodies.

4 The chief source of the Enlightenment was the philosophy of Leibnitz. In turning back to the life of this distinguished German the reader will remember that he was the “first scientist in two hundred years,” and that he was the Rationalist who presaged the Enlightenment. Leibnitz was born in 1646, just two years before the war closed, and he died in 1716, one year after the death of Louis XIV. He lived during those unfruitful years after the war and before the Enlightenment; and his philosophy stands out prominently from the low plane of the intellectual activity of that time. In 1686 he completed the construction of his philosophy by introducing the conception of the individual as a dynamic centre.

Many German philosophers, about the time of Leibnitz, had later tried to free philosophy from its technical difficulties and make it readable for the people as the French Encyclopædia was for the French people. Among these were Tschirnhausen (1651–1708), Mendelssohn (1729–1786), and Tetens (1736–1805), but the German Enlightenment for many reasons did not come about like the French in the popularizing of philosophy. The philosophy of Leibnitz did reach the people directly, but the people were stirred through the medium of literature rather than of philosophy. Leibnitz's philosophy became the dominant thought only in the universities and academic circles, and remained so until the publication of Kant's *Critique* in 1781. The Halle professor, Wolff (1679–1754), developed and transformed it, not to its advantage, into an absolutism, and under the name of the Leibnitz-Wolffian philosophy it was the canon for the German schools. Once established in the universities it remained unchanged there even by the invasion of French thought that penetrated other German circles. Even Voltaire's residence at the court at Berlin (1750) had no influence upon the Leibnitz-Wolffian philosophy of the Berlin Academy. The dogmatic absolutism of this philosophy remained impregnable in academic circles and was the last to be dislodged — and then only by a German. There was little progress among these Rationalists, once their doctrine had been cast, except in incorporating in an eclectic fashion the doctrine of others.

Wolff systematized the unordered and desultory doctrines of Leibnitz for the purpose of teaching them logically. This was in 1706, when by the aid of Leibnitz

he obtained the professorship of mathematics at Halle. He met with instant success. The rationalism of his doctrine is seen from the title of many of his works, which are *Reasonable Thoughts on God*, *Reasonable Thoughts on the Powers of the Human Understanding*, etc. He lectured at Halle until 1723, when he was expelled by the theological influence. His return to Halle in 1740 was coincident with the crowning of Frederick the Great and the beginning of the German Enlightenment. We can note a few general aspects of his teaching. He employed the German language in his lectures, following Thomasius, who was the first to do it. Leibnitz had written in letters and treatises for the few, and had used either Latin or French. Wolff expanded Leibnitz's doctrine, broadly and superficially, for a larger public, in the German tongue. He systematized Leibnitz's teaching, and thereby could disseminate it. But in doing this he so toned down Leibnitz's leading ideas that they lost all their peculiar force. For instance, he taught that only the human mind has the power of representation; and again, that preëstablished harmony applies only to the relation of the soul and body of the human monad. In general, he so extended the Leibnitz principle of sufficient reason that it applied to all departments, and was reduced to the principle of identity. The world is a huge mechanism designed for divine ends. Rationality is assumed to be everywhere, and knowledge of its existence is to be obtained only by deduction from evident principles. The result was that the philosophy of Leibnitz was reduced to a commonplace and empty rationalism — a purely deductive affair. Wolff undertook to demonstrate everything, and to make intelligible what is above reason. The Wolffian philosophy was a reversion to

mediæval scholasticism, since it solved all problems by proof through the cogency of mathematical and logical processes. Truth is a matter of definition and classification. Thus Wolff produced a philosophy that was pedantic and formal, clear but shallow. It was Leibnitzian with Leibnitz omitted; it was a thorough-going dogmatism, because no problem was difficult to it; it was a rationalism, because to it all truth is the deliverance of the reason and none is derived from experience.

The Wolffian Rationalism became a factor in the German Enlightenment on the one hand by combining with Pietism, and on the other through its translation into the new German literature. In itself the Wolffian Rationalism was a dogmatism that merely supplanted the dogmatic scholasticism of Melancthon and Luther. It lost its absolutism in its combination with Pietism, and became a personal and individualistic religion. It also lost its absolutism and became more like the philosophy of Leibnitz through its translation into the literary writings of Lessing and Herder; and thus was subordinated to an incident in individual culture.

Summary of the Literary Enlightenment of Germany (1740-1781). The German Enlightenment was thus made possible by the political growth of Prussia, by the development of a meagre literature, by the rise of Pietism, and by the Wolffian interpretation of Leibnitz's philosophy. All these were important features of the century following the Thirty Years' War. The year 1740 is the beginning of the German Enlightenment. It marks the crowning of Frederick the Great, the decline of the influence of Gottsched in literature, and Wolff's return to Halle. The arrival of Voltaire in Berlin (1750) is an important factor in the rise of the

German Enlightenment. The spirit of the Enlightenment was at its height twenty years later (1760), contemporaneous with the Seven Years' War (1756-1763) and with the publication by Lessing in 1759 of his *Letters concerning the most Modern Literature*. In these *Letters* Lessing gave the death-blow to Gottschedism, and established the Enlightenment on a firm basis. This was followed by the Storm and Stress movement (1773-1787), which brought the Enlightenment proper to an end.

1730-1750 Period of Experimentation — Gottsched, the Swiss, the Anacreonticists, etc.

1740 The Enlightenment inaugurated — the crowning of Frederick the Great, the decline of Gottschedism, the return of Wolff to Halle.

1750 The coming of Voltaire to Berlin.

1751-1780 Lessing and the Enlightenment.

1773-1787 Storm and Stress Period. — The Enlightenment proper at an end.¹

1787-1805 Classicism. (Schiller d. 1805).

1795-1850 (approximately) The Romantic Movement.

1850- The Realistic Movement.

The Political Enlightenment of Germany — Frederick the Great. Political changes preceded and did not follow philosophical theories in the German Enlightenment. Germany was therefore like England and unlike France in this respect. The coming of Frederick to the throne of the now powerful Prussia, the reforms that he inaugurated, the religious toleration that he granted, his recall of Wolff to Halle, his avowed support of in-

¹ In a real sense the German Enlightenment has never come to an end. Classicism and the Romantic movement were a continuation of it.

tellectual things, and especially the Seven Years' War (1756-1763) were the political groundwork that made possible the Enlightenment in Germany. Frederick himself is the great figure in the German Enlightenment, just as Voltaire is in the French. Frederick accomplished in concrete acts for political Europe what Voltaire accomplished for ecclesiastical Europe. Voltaire destroyed the ecclesiastical absolutism of the spiritual power, while Frederick destroyed the absolutism so long connected with the name of the Holy Roman Empire and the House of Hapsburg. Before he died, he had freed the German states from the dominance of Austria, and had given to the Empire its death-blow. In the Seven Years' War he had given to modern Europe an example of a new political ideal in an autocrat who professed to be the servant of the State. His whole thought was upon the advancement of his State. He set up the principle of the equality of his subjects before the law, and the principle of religious and philosophical liberty. In his external struggles with Austria and in the internal construction of his kingdom Frederick is the protest of the Enlightenment against the arbitrary despotism of political Europe. The example of Frederick was an inspiration to all Germany. Kant calls the eighteenth century the Age of Frederick the Great. Frederick had made his subjects feel that they were Prussians, or, as Goethe puts it, "Fritzche" (Fritz's men); that the great foe of the German people was the German Empire as personified by the Austrians and Saxons. When he had conducted to a successful issue a deadly war of seven years single handed against the combined force of more than half of Europe,—Austria, Russia, and France, all representing political

absolutism, — he inspired patriotism not only in his own subjects, but in the people of many other German states. Reforms were undertaken in Bavaria, Baden, Saxony, Brunswick, etc., and by Catherine of Russia and Joseph of Austria.

Furthermore, Frederick himself was personally enlightened; he looked upon himself as the greatest among those of enlightened intellects. He had become denationalized by his early training. His father was fond of what was German, his mother of what was English, and he himself of what was French. He had studied Bayle, read French philosophy, and become acquainted with the rationalism of Wolff and the empiricism of Locke. He was at one time an atheist and materialist; but deism was his natural attitude of mind, for he emphasized morality above speculation. Conceiving himself, as the most enlightened, to be the great servant of the State, he undertook the enlightenment of his people. All Prussia must be enlightened by him, and therefore no restrictive institutions, such as guilds and corporations, could be permitted. The best man should rule, and he was the best man. Since the people are incapable of looking after themselves, they must be compelled under his benevolent autocracy to be enlightened, rational, and happy.

The Course of the German Enlightenment. Why did not the movement become as in France a political revolution? There are three reasons why it did not: (1) the reforms that the German princes adopted were wise; (2) Germany was composed of segregated states in which concerted action was difficult; (3) a new intellectual and æsthetic current was begun by Lessing, of whom we shall speak. There is no doubt

that the Enlightenment in Germany pointed to the same result as in France. From 1760 to 1780 it looked as if Germany as well as France would witness a tremendous social upheaval. From 1773 to 1787, Germany was stirred by the Storm and Stress movement. Frederick himself had pointed to the English parliamentary government as the "model for our days." The most of the German thinkers were at heart republicans, — Klopstock, Schiller, Kant. Every man in Germany became a little Frederick, and tried to enlighten those who were inferior to him. The movement extended to the schoolroom. Secret societies were formed of kindred enlightened souls to enlighten the world. The most important of these societies was the Illuminati. The aim of these was to free men from national and civil ties, from pedantry, intolerance, political and theological slavery. The human heart is the basis of society, and the only worthy object of study. The Illuminati included even princes among its members. It was established in 1776 and prohibited in 1786. There was a distinctive Storm and Stress literature. This was set in motion by Rousseau's *Héloïse* and *Emile*, which were widely read in Germany. Writers glorified the individual, called men back to primitive and uncorrupted nature, denounced civilization, and for twenty years it almost seemed as if the German Enlightenment had turned from the intellectual achievements of Lessing, and would follow the sentimental appeal of Rousseau. Herder was particularly prominent in this movement, also Goethe and Schiller in their early writings.

Of the three factors that saved Germany from a political revolution, perhaps the most potent was the new, fresh, literary ideas of Lessing. If Frederick is the

originator of the German Enlightenment, Lessing is the savior of it. The Enlightenment in England stopped with the phenomenalism of Hume, in France with the Revolution, but in Germany it has in a sense continued even to the present day. The classic period of Goethe and Schiller, the modern scientific achievements of the Germans, have their perpetual source in Lessing. He not only gave the death-blow to the pedantic absolutism of the intellectual past, but he set the movement upon a permanent intellectual basis, upon which it has stood against the assaults of sentimentalism for a hundred and fifty years.

Lessing. G. E. Lessing (1729–1781) was not only a sound scholar, but a polished man of the social world. He was a writer of epigrams, fables, and comedies, a dramatic and literary critic, a translator and essayist, a student of philosophy and ecclesiastical history, and a writer upon art. His *Nathan the Wise* is, after Goethe's *Faust*, the greatest literary production of German thought. With him German literature begins. He rejected the French models accepted by Gottsched; he introduced Shakespeare to the Germans; and he surpassed all his contemporaries in literary and artistic reform, social enlightenment, and religious emancipation. Lessing and Winckelmann were the first to spread a love for the past by a critical study of it. Lessing was not a violent iconoclast like Voltaire, but a discriminating critic. He said that if Leibnitz had wished for an interpreter, he would not have chosen Wolff. The new literary writers, Lessing and Herder, in their insistence upon subjectivity and intuition, rather than Wolff, were the true interpreters of Leibnitz. Lessing differed from the Enlightenment in his conception of

the present in its continuity with the past. Herder, too, was interested in development. Lessing pointed to the perfect models in the past; Herder to the origins of things. Both believed in an immanent God and the harmony of the universe. At this time the problems in æsthetics came to light, and with them the creation of "world literature," which drew from all historical thought — from antiquity, the Renaissance, and the Enlightenment. The Pietists, the Wolffians, and the literary writers agreed in taking the subjective point for their view of life. Thus Leibnitz appears through Lessing as a motive power in the German Enlightenment. Lessing's doctrine of individuality so transcended that of the Storm and Stress Period that he was not understood by it. His enlightened individual suppresses his individuality. But his principles were so fundamental that the Storm and Stress Period proved to be only an interruption, and the German Enlightenment was perpetuated. He thus projected himself beyond the eighteenth century by the instruments of that century.

CHAPTER X

KANT*

The Convergence of Philosophical Influences in Germany. The intellectual thoroughfare from the past into our modern times does not pass in the eighteenth century through England, nor yet through France, but by way of Germany. Traditional France ended with the French political revolution, while the English empirical movement proved its own inconsistency in the phenomenalism of Hume. In Germany alone, at the close of the eighteenth century, there was a renewed and brilliant intellectual life. In its creative productions it has been compared by the Germans to the Systematic Period of Greek thought (from the death of Socrates to that of Aristotle). Both periods appeared when the political fortunes of the respective countries were at their lowest ebb.

There were six large influences that converged upon this epoch, some of which we have already noted as beginning even as far back as the period introductory to the Enlightenment (1648-1740) (see pp. 217 ff.). Some are later in their origin or come from a foreign source. Let us merely enumerate them here.

(1) Pietism, the religious influence that began with Spener (1635) and swept Germany in the eighteenth century; (2) The sentimentalism of Rousseau; (3) The empirical psychology of Locke among the younger

* Read Windelband, *Hist. of Phil.*, pp. 529-531.

Germans; (4) The Rationalism of the Leibnitz-Wolffian philosophy, which was most powerful in academic circles; (5) The mathematical rigorism of the nature-philosophy of Newton; (6) The new literary writers in their insistence upon subjectivity and intuition.

The Three Characteristics of German Philosophy. German philosophy will be seen to have three characteristics. (1) It is scholastic or academic. It is the philosophy of the professors of universities. At the same time it must be said to be the expression of the social genius of the German people. Napoleon testified to this when he said, "The English inhabit the sea, the French the land, the Germans the air." (2) This German philosophy is mystical. It is profound rather than external. It is not founded upon external experience, but upon a questioning of the inner and spiritual life. It is inward, religious, and spiritual, like the philosophy of Plato. One of the most accurate interpreters of Kant has pointed out the many similarities between Kant and Plato (see Paulsen, *Immanuel Kant*). (3) German philosophy was nevertheless cosmic, or a description of the world. These men whom we are now to study were not ignorant of the world or of science. Political life offered them no attractions. The soul of man was regarded by them as too noble to be engrossed in external things. As Madame De Staël said of the time, "There was nothing to do save for him whose concern was with the universe." Men, however, took the inner point of view, and regarded all things with reference to it. The Germans tried to humanize the universe. They looked upon nature as working out unconsciously those processes which consciously took place in man. The contemplation of beauty is not that

of an external world, but of the inmost nature of reality. Thus individuality and cosmic reality are one and the same. Life has a joyful outlook, not because our tasks are easy, but because our strength is equal to them; for is not God in us?

The Two Periods of German Philosophy. German philosophy is divided into two epochs: (1) the period of the formation of the critical theory of knowledge by Kant; (2) the period of the metaphysical development of Fichte, Schelling, Hegel, Herbart, and Schopenhauer. Kant belongs both to the Enlightenment and to German idealism. He is the point of convergence of the intellectual forces that preceded him and the point of departure of the idealists who followed him. For this reason historians differ as to the period in which he is to be placed. In one sense he is the transition from the Enlightenment, in another sense he is the introduction of German idealism. But in reality he forms an epoch between the two. Although the dualism, which was always the background of the philosophy of the Enlightenment, formed too the background of his thought, although he on the other hand looked upon his *Critique of Pure Reason* as only an introduction to a metaphysics, which he never wrote, nevertheless he occupies a unique place in drawing up for his time and for the future a new conceptual standard by which the new problems might be criticised. The problem that Kant set before himself was epistemological and not one of metaphysics.

After Kant there appeared a growth of metaphysics. The great German idealistic systems appeared. At first the Kantian theory was misunderstood, but at Jena, then the chief intellectual centre in Germany,

there was formed a little group of Kantians under the leadership of Rheinhold. Jena is near Weimar (see map p. 280), which was the main literary city of Germany, and the residence of Goethe. The poetry of Weimar and the philosophy of Jena stimulated each other. Schiller is a notable example of the influence of Kant upon the literature of the time. In philosophy Kant was followed by the various systems of Fichte, Schelling, Hegel, Herbart, and Schopenhauer, which built a metaphysical superstructure upon the Kantian foundation.

The Influences upon Kant. The development of Kant's thought was modified by influences from at least five different sources.

1. *Pietism.* This was the earliest influence upon his life, and was due to his parents and to F. A. Schultze, the teacher of the high school of Königsberg. It will be remembered that this ethical Puritanism was a moral reaction against the formalism of the churches in the period after the Thirty Years' War. Kant never lost his attachment for the Pietists; and his later rigoristic ethical theory, as well as his own personal life, sprang from his early Pietistic training. Schiller wrote to Goethe, "There is always something about Kant, as about Luther, which reminds one of the monk, who has indeed quitted his cloister, but who can never quite rid himself of its traces."

2. *The Leibnitz-Wolffian Philosophy.* This influence came during his academic training in the University of Königsberg, which he entered upon at the age of sixteen years. This was in 1740, the same year in which Frederick was crowned and Wolff was recalled to Halle,—the time when the Leibnitz-Wolffian philo-

sophy was at the fullness of control of Germany. It must not be forgotten that this philosophy remained dominant in German academic circles until Kant's own theory supplanted it in the nineties. Kant was an avowed disciple of the Wolffian school for the next twenty years (until 1760), and he never shook off the Wolffian metaphysical dualism.

3. *The Physics of Newton.* To his university training Kant was indebted also for his acquaintance with Newton. The antagonism between the metaphysics of Wolff and the physics of Newton was, at least at the beginning of Kant's career, of decisive importance in his development. One of Kant's teachers at the university was Martin Knutzen, whose lectures included philosophy, mathematics, and natural science. Through personal intercourse with Knutzen, the young Kant was introduced to the Wolffian philosophy, and also to the Newtonian mathematics and physics. During his activity as a teacher Kant showed, even into his later period, a predilection for natural science, especially for physical geography and anthropology. The same year in which he entered upon his career as teacher in the University of Königsberg (1755), he published his celebrated *Theory of the Heavens*, in which he anticipated Laplace by forty years in the formulation of the nebular hypothesis.

4. *The Humanitarianism of Rousseau.* Kant got from Rousseau a new evaluation of man. Kant had the advantage of a prolonged youthful development. He was well into his thirties when the movement, begun by Lessing, became a social force in Germany. A new political consciousness appeared among the German people, due to the influence of Frederick the Great and to that

of the Frenchmen, Voltaire and Rousseau. Kant was thirty-eight (in 1762) when he read Rousseau's *Emile*. Kant had been brought up in the common teaching of the early part of the Enlightenment to despise the ignorant masses of people. Through Rousseau he received in words of authority the conception of the inherent dignity of the individual man. Through this conception science and speculation came to have a new value to Kant. They were no longer ends in themselves, but the means for moral development. The moral in its primacy over the intellectual came to be a permanent feature in Kant's doctrine. His early Pietism was confirmed, and Rousseau replaced Newton in his regard.

5. *The Skepticism of Hume.* The influence of Hume's skepticism was felt by Kant just before his eleven years of silence, when he became engaged in his construction of his critical problem. But Hume influenced Kant in a negative way. The classic and oft-quoted expression of Kant, that Hume awoke him from his "dogmatic slumber," refers to the dogmatism of the empirical school to which Hume belonged, and not to that of the rationalistic school of Wolff. To Kant both empiricism and rationalism were dogmatic; the one because it assumed the validity of sensations, the other because it assumed the existence of innate ideas. Thus Hume effected a reaction in Kant against Hume's own doctrine. But in thus reacting from Hume, Kant saw that the answer was to be found not in the rationalism of Wolff, but in an ideal conception of space and time. Hume's influence was the last before Kant firmly established his theory of knowledge in his *Critique of Pure Reason*.

The Life and Writings of Kant (1724-1804). The

external changes in the life of Immanuel Kant were the fewest possible. He was born at Königsberg in 1724; he went to the school of that city and then to its university, and then acted in the capacity of tutor in families in the province of Königsberg. He became privat-docent in the university at the age of thirty-one, and professor of logic and metaphysics at the age of forty-four. He was called to the University of Halle in 1778, but he refused to leave Königsberg. In fact, Kant never went outside the province, and but little outside the city. Nevertheless, in the eighties he saw himself become the most important figure in Königsberg, and in the nineties the most important power in German academic circles. In 1794 he came under the censure of the reactionary government of Frederick William II and "was obliged to refrain in the future from all public addresses on religion." This was the only outer conflict in his life. In 1804, at the age of eighty, he died. The externals of his life were from the beginning to the end an undeviating routine, — his lectures, his daily walk, his dinner with friends, his hours of reflection upon his great problem. These have been made the subject of many descriptions.*

The life of Kant is notable because it is the history of an unusual singleness of devotion to the solution of a speculative problem. His youthful point of departure was the rationalism of Wolff; his point of attainment

* Read the quotation from Heine in E. Caird, *Phil. of Kant*, vol. i, p. 63; Stirling, *Textbook to Kant*, Biographical Sketch; Royce, *Spirit of Modern Philosophy*, chap. iv; Windelband, *Hist. of Phil.*, pp. 532-534; Rand, *Modern Classical Philosophers*, pp. 376-405, 420-424; Eucken, *Problem of Human Life*, pp. 435-452.

was the *Critique of Pure Reason*. Between these two points his history was a series of mental reversals. Kant spoke of his life as divided into two parts at the year 1770; his pre-critical and his critical periods. At that time there was a change in the form as well as the content of his writings. His pre-critical writings possess a graceful, flowing style; his critical works are heavy and artificial in their structure, and reveal the labor with which his thought tried to reconcile contending *motifs*. So far as the content of Kant's thought is concerned the pre-critical period will be seen to fall into two subdivisions at the year 1760. Kant's life may therefore be divided into three epochs: (1) 1724-1760, the period when he was a Wolffian rationalist; (2) 1760-1770, the period when he was an empirical skeptic; (3) 1770-1804, the period when he was a critical epistemologist.

In the first period he accepted the rationalism of Wolff, but his main interest, as shown by his writings, was in natural science. He was inspired by the natural philosophy of Newton, which, in the latter part of this period, led him to mistrust the metaphysics of Wolff. That is to say, he began to suspect that the mere logical operation of concepts by the "pure reason" could not be a statement about things in the real world. In the next ten years—his second period—he became convinced that the metaphysics of the rationalists was impossible, and yet that the metaphysics of the empirical school of the English was equally absurd. His writings during this time are more strictly devoted to questions of metaphysics and epistemology. Then came his critical period. This was inaugurated by his celebrated Dissertation of 1770, followed by a period of eleven years of literary silence,

a silence broken by the publication of his *Critique of Pure Reason* in 1781. Between 1781 and 1790 appeared the more mature works from Kant's pen. Among them were the *Critique of Practical Reason* (1788) and the *Critique of Judgment* (1790), formed on the model of the *Critique of Pure Reason*. Besides these, his minor writings were very numerous, and one notes an essay by him in the last year of his life. But the writings of Kant after 1790 treat in the main of the philosophy of law and conduct, and show themselves to be the writings of his declining years.

The Problem of Kant. The problem which Kant placed before himself was that of epistemology. Epistemology is the theory of knowledge, and Kant set to work to investigate the knowing process. The peculiar significance of Kant rests upon the fact that out of the various influences converging upon him and his time he matured a new conception of the problem and of the method of procedure of philosophy. He was convinced that the problem of his time was not one of metaphysical speculation, although he felt the value of such speculation in the regions of religion and morals. Yet he saw that the metaphysical rationalism of Wolff had proved itself inadequate because it was merely the logical operation of concepts, and had not dealt with real relations. He was equally sure that the empirical metaphysics of the Englishmen was inadequate because it was never certain of any truth. Rational metaphysics was logically true, but not real; empirical metaphysics was real enough, but never true. So Kant determined to find out the relation between the logical process of thought and the reality of things. He felt that the first problem in his time to be faced and settled was the prob-

lem of knowledge, — the epistemological problem. He planned to face later the metaphysical problem, but he delayed this until too late in his old age. The problem of Kant can be put in the simple question, What can we know? The metaphysical problem that he deferred was, What is real? Yet his problem was not nearly so simple as this statement would seem to make it; for the epistemological problem which he set himself was complicated by the Wolffian metaphysical dualism which he always presupposed. Since Kant agreed with the Wolffian dualism — the theory that a great gulf separates mind and matter — his query about knowledge was not the simple question, What can we know? but the longer question, What can we know about the external world?

The Method of Kant. There is bound up with the epistemological problem a new method of procedure in solving it. How shall we find out what we can know? Kant calls his method the critical method. It is not only a criticism in a general sense, in that it weighs carefully the conditions of knowledge. It is also criticism in the special sense of confining itself to a restricted field. Kant pointed out that two methods may be employed, the dogmatic and the transcendental. He asserted that the dogmatic method had been employed in the past and had proved itself fallacious. What is the dogmatic method? All philosophy was dogmatic to Kant which sought to find out what knowledge is true by showing how it originated and developed. Dogmatism is no solution; it is merely a psychological tracing of ideas to their sources. These sources will be either innate ideas, if we are rationalists, or sensations, if we are empiricists. *The true method is the transcendental or critical*

method. What is this method? It is a study of the nature of the reason itself. It is an examination of the "pure reason" to see if its judgments have in any instance a universality beyond human experience, and yet are necessary to human experience. The logic of such judgments must be absolutely reliable; and yet at the same time the judgments must be applicable to the world of things. The method being transcendental, such judgments are transcendental; not because they transcend our experience, but because they are necessary to experience. The transcendental is not what is chronologically but what is rationally *prior*. The transcendental is the indispensable to knowledge. The critical method is the finding of this indispensable condition. Kant would search the whole field of the reason for this. Since to Kant thinking, feeling, and willing are the fundamental forms of the reason, he sought the realm of thought for the transcendental principles of knowledge, that of the will for the transcendental principles of morality, that of feeling for the transcendental principles of beauty.

The Threefold World¹ of Kant—Subjective States, Things-in-Themselves, and Phenomena. In his search for those indispensable conditions of knowledge of the external world, Kant unfolds the threefold character of the realm of human life. To Wolff the world had been twofold. In other words, Wolff had conceived the world as dual, in which there was a correspondence, part by part, of independent reality to the states of consciousness. To Wolff reality is independent of consciousness, and yet we are conscious of that reality.

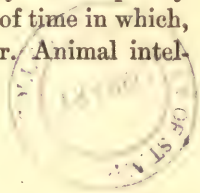
¹ The word "world" is used for lack of a better. The reader is, however, again reminded that Kant's problem is one of epistemology and not of metaphysics.

Now Kant never gave up entirely the Wolffian dualism, but he came to see that in such a situation there could be no knowledge. For how can we be conscious of what is absolutely independent of us? Consequently Kant plundered the Wolffian worlds of independent realities to build up an intermediate world, — a world of phenomena. He dissolved the sharpness of Wolff's dualism into a world with three divisions; and he gave to each division a new epistemological value. These were the realm of the subjective states or the inner consciousness of the individual, the world of phenomena or the realm of knowledge, and the world of absolute reality or that of things-in-themselves. The value of the world of phenomena consists in its being the realm of knowledge. The other two realms have values of their own, which we shall describe below.

Wolff's twofold world may be thus compared with Kant's threefold world: —

- | Wolff. | Kant. |
|------------|---|
| 1. Mind. | 1. Subjective states. |
| | 2. Phenomena — the realm
of knowledge. |
| 2. Matter. | 3. Things-in-themselves. |

1. The realm of subjective states evidently is not a realm of knowledge. For it is the realm of intuition and immediate apprehension of the individual's own ideas and sensations; and this is not what we mean by knowledge. This subjective world is that in which I live alone. It is a realm of which nobody else is conscious, a realm which gives to me my individuality. The only connecting linkage between my various purely subjective states is the accidental order of time in which, empirically or by association, they occur. Animal intel-



ligence possesses only such sense-perceptions and sensations, and these are modifications of its subjective consciousness. Such a mental constitution has not the capacity for knowledge, but only the haphazard association of ideas. Kant looked upon the content of subjective consciousness as the object only of psychological investigation.

2. The realm of things-in-themselves is not to Kant the realm of knowledge. By things-in-themselves Kant distinctly does not mean things-for-us, not material bodies, not nature objects. It must be remembered that Kant has plundered the material realm of the dualist. The things-in-themselves which are left behind as a residuum lie outside all sense-perception and so beyond all knowledge. A divine intelligence might have the things-in-themselves as objects of knowledge, but not we human beings. The thing-in-itself is the unknown and unknowable. But if this realm of things-in-themselves is so absolutely independent of us that we cannot in any way know it, how can we say that it exists? Kant replies to this: while we cannot say *what* a thing-in-itself is, we are obliged to say *that* it is. For although beyond even our sense-perception, it stands as a necessary postulate to perception, as a mere "problem." Kant also calls things-in-themselves Noumena, and regards them as "limiting concepts" to the divine non-sensuous intelligence. Their reality is as little to be denied as affirmed.

3. Kant pointed out that between or beside the realm of subjectivity and that of the things-in-themselves lies the realm of human knowledge, which we in our every-day speech call physical nature, and to which he gave the name "the world of phenomena" or "the

world of experience." The subjective world is apprehended by the individual alone, the world of things-in-themselves is known by no human being, but the world of phenomena is the common object of knowledge of humanity. Phenomena are not things-in-themselves, but things-for-us; they are physical nature, an interrelated totality for us. They constitute not absolute reality, but a reality relative to us. Phenomena are experiences in their relations; such related experiences are objects of knowledge, and in their thoroughly organized and systematic form they constitute nature.

Thus the dualism which we ordinarily meet, like the "two world" theory of Wolff, has many differences from this critical theory of Kant with its threefold divisions of one world. One of the most important is that in Kant's theory the correspondence between states of consciousness and reality has disappeared. Reality touches consciousness only at one point, — at that point where sensations arise. Sensations mark the boundary between unknown reality and conscious life. On the side of reality all is darkness; on the side of conscious life all is the creation of our complex synthetic activity. With the boundary line of sensation as a base, the two realms extend in opposite directions. In value the realm of our conscious life is only relative; that of reality or things-in-themselves is absolute.

The World of Knowledge. There is this to be observed about the threefold realm of Kant: the realm of subjectivity and that of knowledge together make up our conscious life. One is the realm of the conscious individual, and the other the realm of the consciousness of humanity. Kant conceived this further distinction between the two realms: in a purely subjective state

the mind is entirely passive and its content is without control ; in a state of knowing the mind is actively engaged in collecting and relating its ideas. This is called by Kant synthesis.

When Kant was formulating his problem, there gradually came to him in clearer outline the synthetic nature of the activity of the human reason. He felt more and more that the secret of the knowing process was to be explained by its function of combining many experiences into a unity. This conception of synthesis is what separates the *Critique of Pure Reason* from all the previous writings of Kant. Furthermore, the three books of the *Critique* are expositions of the different stages in which mental synthesis completes itself : in (1) perception, (2) understanding, and (3) reason. The knowing activity of man develops in these three different forms of synthesis, in which each lower stage is the content of the higher.

What, then, is the central factor in knowledge ? It is the synthetic power of the mind. The mind is not merely passively aware of its sensations as they come *seriatim*, but it actively relates them and holds them together. The mind is a dynamic agent whose activity consists in synthesizing in the present moment its experiences of the past. The human mind is not like a curtain upon which stereopticon pictures appear and then disappear in turn. It retains its pictures, although they are no longer being thrown upon the screen. Suppose we hear the ticking of a clock. Now if we had no synthetic power, all we should apprehend would be one, one, one, — and so on. But we do have synthetic power, and we say one, two, three, and so on. We count in a series in which each term includes the preceding

term. Two includes one, and three includes two, etc. This is knowledge. It is cumulative experience. The experience of twenty animals, each having one experience, is not the same as the experience of one man having twenty experiences. In vain would nature act on man if the mind of man through memory and imagination did not carry over experiences. So the important thing is not what happens, but what power the human mind has. Knowledge, then, to Kant is the unifying of the manifold.

There are, therefore, two aspects to knowledge; the passive sensations and the active power of synthesis. Sensations, on the one hand, are the raw material out of which reason through its various forms creates the finished fabric of knowledge. Sensations are the content of knowledge. On the other hand, there is the active unifying power of the reason. *Knowledge consists of sensations and synthesis in conjunction.* Reason alone deals with "thought relations" or imaginations, whenever it tries to treat objects of which sensations are not the raw material. Sensations alone, however, are only subjective states. The oft-quoted sayings of Kant, that "Only in experience is the truth," and that "Conception without perception is empty, perception without conception is blind," refer to the restriction of knowledge to the sense-materials and to the synthetic function of the reason.

The Place of Synthesis in Knowledge. What position does synthesis occupy in the total process of knowledge? Is synthesis one of the factors or elements of knowledge? Is synthesis on the same level with the sensations, the feelings, the imaginations? No, it is very different. The synthesis that Kant is describing is

not the product or conclusion from an inference. Kant does not mean by synthesis the combination of facts as a result, such as a biologist might make in framing the law of the habits of animals from his observation of them. The synthesis that Kant is talking about is not so much the result of combining experiences *as the act of combining them*. The frame of the unified manifold, the law of its unification, the act of binding the isolated experiences together is synthesis. Synthesis occupies a higher level than the elements of knowledge or knowledge itself. Synthesis is the knowing process rather than the known product. It is constitutive; it is creative; it conditions experience and puts the material of experience together. It must not be thought to be a voluntary act of the mind, which the mind will or will not do, as it pleases. When the mind acts, it synthesizes.

Furthermore, the synthetic functioning of all human minds everywhere is the same. However much their sensations differ, they combine and orderly arrange their sense-materials in the same ways. The synthesis of the human mind is the source of the universality belonging to knowledge; the sensations, the "given," are the source of the difference in knowledge. Knowledge is the result of minds that function in absolutely the same ways; and we should never have knowledge if the order and linkage of the world depended on the accident of experience. Take, for example, such laws as those of mathematics or the physical law of cause. These are the same for everybody. They are universal laws. The ordinary conception of them as independent principles of an independent nature world will not account for their necessity for everybody and their universality. As independent principles they would differ for different peoples just

as sensations differ. In that case we should have no knowledge. Human beings could not then think about the same things, nor reason under the same guiding principles. However, we do think alike, we have the same geometry, the same physical laws, the same time-estimates; and simply because we function alike synthetically. Knowledge is thus the common possession of humanity because the synthetic functioning of the different individual men is identically the same.

A very good way to get at Kant's central principle of synthesis is to draw this picture. Suppose that besides the race of human beings with its own peculiar way of ordering its world, there were a race of angels endowed with its own powers, another of hobgoblins likewise endowed with its own powers, and so on to x, y, and z races — any number you please. What would be the situation? In the first place, each one of the groups would be absolutely isolated from each of the others. No one would have the power to know even the existence of the others. No one race would even have anything in common with the others. The world of each would be different. In the next place each would be trying to interpret reality, and in doing so, each would construct and order a world of reality of its own. The members of each race would have a world in common and the members would know one another. But that is all. The members of each race would not be able to get outside their own powers of synthesis. In Holy Writ the home of the angels has been sometimes described as having no time and space, but this means only that space and time are aspects of our mental synthesis and not of theirs. We live in our world of our interpretative construction of reality, and they in theirs. The same would

have to be said of *x*, *y*, and *z*. None would live in a world of absolute reality. But each would live in a world made different from all the other worlds by the differing mental powers of each race. Yet the members of each race would inhabit a world in common because the individuals of each had common mental powers. The particular world that human beings inhabit is called physical nature, whose laws are known as the laws of science. How can it be *one* world in which so many millions of different human beings live? Because these millions of human beings are under the same fundamental rational laws, and they construct the world in a common fashion. The laws of nature are, after all, the laws of our own minds. They are the laws of reason. The laws of nature are not the laws of absolute reality, but the laws of the human interpretation of reality. All the linkage of facts, all the law and order of our universe, all the combination of the variety of objects of knowledge — in a word, the entire body of science or the world of physical nature is a human mental synthesis. Does independent absolute reality exist? Yes; but it exists behind the scenes for us as for the angels. Mental synthesis is constitutive of the world in which we are actually engaged — mental synthesis is shot through and through all our experiences. Mental synthesis is the framework of the universe, and therefore Kant says, "The world is my representation."

The Judgments Indispensable to Human Knowledge. It will be seen from the above discussion that Kant does not believe that an idea or a sensation taken by itself constitutes knowledge. Knowledge consists of sensations framed together in a synthesis. That is, ideas must be taken together with other ideas. This is

called in grammar a proposition, having a subject and a predicate. In logic it is called a judgment. The only way a human being can express knowledge is in the form of judgments, but all judgments of human beings are not necessarily knowledge.

Judgments are divided by Kant into two large classes, — analytic and synthetic. The large class of analytic judgments are not expressions of knowledge. What is an analytic judgment? An analytic judgment merely expresses in the predicate something that is contained in the usual meaning of the subject. Such a judgment articulates the meaning of an idea by emphasizing some of its well-known attributes. Thus we say, "Gold is yellow." Such a statement about "gold" does not show any knowledge. It is called sometimes an explicative statement. It is tautologous, but not on that account trivial. Let us look then to synthetic judgments to see if they express knowledge. But first, what is a synthetic judgment? A synthetic judgment is one in which the predicate is not contained in the usual meaning of the subject. It is a statement of something new about the subject in hand. For example, the judgment, "The watch is yellow" is a synthetic judgment because the predicate "yellow" is not a necessary part of the meaning of "watch." A synthetic judgment therefore brings two ideas together in a new relation. It thereby enriches knowledge and is the expression of discovery. The synthetic judgment is often called ampliative. (The double meaning which Kant gives the term "synthetic" need not confuse us. Synthesis is used by Kant to mean the framing constitution of the mind, and also as one of the results of the activity of the mind, *i. e.* a class of judgments. In the first sense all

judgments, both analytic and synthetic, are expressions of synthesis.)

Are all synthetic judgments expressions of knowledge? Kant replies that they certainly are not. He points out that there are two classes of synthetic judgments: one class he calls *a posteriori* and the other *a priori*. By *a posteriori* he means judgments founded in some sense-perception, which are particular judgments or judgments that are inferences from a greater or less induction of sense-perceptions. For example, if I say, "To-day is warm," or that "Swans, so far as I have observed, are white," I am making a synthetic judgment, because I am joining two ideas in a new relation, and I am also making an *a posteriori* judgment, because it is a statement founded upon sense-perception. Now Kant rules such judgments out from those that constitute true knowledge. This would rule out even empirical generalizations of high probability, such as "The sun rises in the east." *A posteriori* judgments, or those founded on experience, however large, do not give us knowledge, but merely probability. The cases upon which such judgments are founded are always limited, and there may be exceptions beyond our observation.

The only kind of judgments that are the expression of true knowledge must, therefore, be synthetic judgments that are *a priori*. That is to say, they must express some new relation between ideas that is also universally and necessarily true. By *a priori* Kant means the universal and necessary; and, furthermore, he maintains that the universal and necessary, and nothing else, constitutes knowledge. He points out that we make such judgments. When we say that the three angles of a triangle equal two right angles, or that every event has a

cause, we are saying something universal and necessary, something not founded on experience. No one would admit that there were exceptions to these propositions. The question, then, that Kant tries to answer in his *Critique of Pure Reason* is, How are synthetic judgments *a priori* possible? Or since to Kant knowledge consists of synthetic judgments *a priori*, under what conditions is knowledge possible? ¹

For the sake of clearness, let us state this problem of Kant in another way. It is the nature of man to try by mere thinking to discover the nature of reality. The dogmatic school of Rationalists had attempted, without calling in experience to its aid, to weave out of pure thought answers to the questions about God, immortality, and nature. It had maintained that clear and distinct notions have a reality corresponding to them, and are therefore real. Judgments formed in this way are analytic *a priori*; but it is evident that while such analyses of thought have a cogency for thought, they do not necessarily have a corresponding reality. On the other hand, conclusions based on experience have a kind of validity for the real world, but they yield no certain truth about it. These are synthetic judgments *a posteriori*. If Hume is right in saying that these are the only judgments dealing with nature, then we have no certain truth about nature. They give generalizations that are useful on the whole, but their conclusions range only from possibility to high probability, and never

¹ Paulsen says (*Immanuel Kant, His Life and Teaching*, p. 135) that this formula of synthetic judgments *a priori* appears only in the introduction to the *Critique* and in Kant's later writings, and it would have been no misfortune if Kant had never discovered it. But Windelband (*Hist. of Phil.*, p. 533, n. 2) says, "No one who does not make this clear to himself has any hope of understanding Kant."

reach certainty. Besides (1) conceptual knowledge and (2) "knowledge of matters of fact," Kant pointed out that there is a third kind. This is the only valid kind. This knowledge is based on synthetic judgments *a priori*. Such knowledge arises independently of experience, *i. e.* is *a priori*, and yet is valid for experience, *i. e.* is synthetic. Hume's statement that such knowledge is synthetic *a posteriori* is not accepted by Kant. Kant is, therefore, bound to show how this third class of synthetic judgments *a priori* is possible, and how pure thought can be binding on experience.

The Proof of the Validity of Human Knowledge. If we turn now to review what we have said about Kant, we find that he undertakes to solve the problem, *How can we know?* by a critical study of the forms of the reason. We have found that the reason is essentially a synthetic power, and is the framework of the world of phenomena to which knowledge is limited. Knowledge is the complex thing, consisting of sensations as its woof and synthesis as its warp. To answer the question, Under what conditions is knowledge possible? we must study not sensations, but synthesis in its several forms. If Kant can show that the mind furnishes the *a priori*, that is, the universal and necessary forms to knowledge, he thinks he has proved his case. He has then explained why human knowledge is valid and thus proved that human knowledge is valid. Now Kant tries to show what the special *a priori* forms of knowledge are and in what the validity of such forms consists. In the first book of the *Critique of Pure Reason*, the *Æsthetic*, he undertakes to show what the *a priori* forms of mathematics are and how they make knowledge valid by being forms of mental synthesis. In the next part of the

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Critique, the *Analytic*, he tries to show what the *a priori* forms of the knowledge of physical science are and how they make physical science valid and objective. In the last part, the *Dialectic*, he discusses the *a priori* forms of the reason and shows why they have no validity in knowledge. These are three stages in which the knowing activity develops as three different forms of synthesis. The stages are perception, understanding, and reason. Each higher stage has the lower as its content. Finished knowledge involves perceptions, reproductions in the understanding, and a recognition of the whole by a thinking subject. Perception, understanding, and reason are not separate acts, but different levels of one consciousness. These will be taken up in succession.

1. In What does the Validity of Sense-Perception Consist? Kant points out :

(1) Sense-perception has (*a*) a content of sense qualities, like sound, color, etc., and (*b*) the relations of space and time.

(2) Space and time originally belong to the subject as its forms of sense-perception, and are not introduced from without by experience.

(3) By means of space and time *a priori* knowledge is possible.

If there is any validity in perceptual knowledge, it depends upon the constitution of space and time; not upon the character of the empirical content, or the sensations. The question about the validity of sense-perception, then, is a question about the reliability of mathematics.

There are two elements in sense-perception : a necessary and constant, and a changing and accidental. Space and time are the constant element. They are homogene-

ous, and always one and the same in quality. They are unities, for there is only one space and one time, and the many spaces and times are only divisions of this oneness. All the differences in space and time are due to the relation and movements of bodies, and are not inherent in space and time themselves. How is this unity and homogeneity of space and time to be explained? By assuming that space and time are original and uniform functions of perception, the forms of perception, the ways of apprehension, the "prehensile organs of our sensibility." They are the ways in which we synthesize on the lower level of consciousness. If they were given in experience, there is no reason why the several spaces and times should not be intrinsically different, like different bodies with different qualities. However, by conceiving them to be mental syntheses in the level of perception, they explain the universality of the laws of mathematics. They are the colored spectacles that all human beings wear; or, to use another figure, they are the mould into which all sensations are run. Being the unchangeable forms of our sensuous receptivity, they have a validity for the entire compass of perception. They are universal because one experience of space and time is valid for all spaces and times; they are necessary because we cannot think of objects apart from them; they are perceptual syntheses because they increase knowledge. Of course we are unconscious of this perceptual synthesis of the sensory elements in space and time. The process takes place automatically. We can nevertheless analyze the process after it has taken place, and speak of the sensations as the materials of knowledge, and the forms of space and time as the *a priori* elements. But in actual

conscious experience, sensations never come to us in their rawness. They are never turned over to the understanding unless they bear the stamp of space and time. The process of knowledge, therefore, starts with complex material — complex because it has been synthesized below consciousness. In other words, perceptions come into the process of knowledge with two aspects: (1) their permanent and necessary form; and (2) their accidental and changing content.

2. In What does the Validity of the Understanding Consist? Kant's discussion of the synthesis of the understanding is given in the *Analytic*, the second part of his *Critique*. His treatment of the understanding is similar to that of perception. The understanding, be it remembered, is regarded by Kant as the second stage in the process of a complete synthesis of knowledge. It is synthesis on a higher level than perception. Indeed, perception is the material which the understanding synthesizes. As in the *Æsthetic* Kant seeks to show: (1) the *a priori* factors of the understanding and (2) that these *a priori* factors give to knowledge its validity. The unifying principle of perception is the mathematical; but physical nature, which is the subject-matter of the study of the understanding, is more than mathematical, more than an aggregate of space and time forms, more than shapes and motions. Nature exists as a connected system of substances, causes, etc. Natural science possesses besides its mathematical basis a number of general *a priori* principles for the validity of its conclusions.

Kant's task was therefore only begun by showing that perception possesses the universal and synthetic principles of space and time. Perception is only the

beginning of knowledge. It is not knowledge, but only subjective consciousness. On the other hand, the understanding is the faculty of knowledge, and therefore Kant seeks to point out its *a priori* or universal elements, and by their presence prove its validity.

Since the days of Aristotle the general terms used in reasoning have been called categories. Any class-term or genus may be called a category. There are certain *summa genera*, the most extensive classes or classes with the lowest connotation, that have been traditionally known as categories, because everything that can be affirmed in a judgment must come under some one or other of them. Aristotle names ten,—substance, quality, quantity, etc. But these Aristotelian categories are classes of analytical relations, such as formal logic treats. They are the classes of the attributes and relations into which objects may be analyzed. These evidently are not what Kant is seeking. He is in search of synthetic categories. He is looking for the synthetic forms of the understanding itself, which transform perceptions into objects of knowledge. He is not looking merely for abstract conceptions. For ideas become nature objects only when they are thought as things with qualities universal to every human mind. The understanding creates out of the perceptions the objects of thought which form the nature-world; and the categories of the understanding are the constitutive principles of such objects. The categories are the relating forms of synthesis through which objects arise. The most difficult part of the *Critique* is called the “Deduction of the Categories,” in which Kant attempts to derive the synthetic forms of the understanding from the various kinds of judgment. Kant’s list is curious

but unimportant, and only two of these categories are useful, — substance and cause. He divides the categories into four general kinds and enumerates three categories of each of these kinds, as follows : —

Categories of Quantity, — Unity, Plurality, Totality.

Categories of Quality, — Reality, Negation, Limitation.

Categories of Relation, — Substance, Cause, Reciprocity.

Categories of Modality, — Possibility, Existence, Necessity.

These categories occupy the same position in the understanding that space and time do in the perception, — they are the *a priori* principles. In respect to them the perceptions are the *a posteriori* material. The categories are pure, innate, and transcendental. They are the inner nature of the understanding. Thus the objects of the understanding contain both *a priori* and *a posteriori* factors, and are syntheses of manifolds. Perception synthesizes sensations, while the understanding synthesizes perceptions, and states the synthesis in the form of a judgment.

Having named the *a priori* forms of the understanding, how does Kant show that by their means our knowledge of nature has validity? Because when the understanding functions, it prescribes these forms to perception. Impressions would remain vague and formless, if we did not think them; by means of thought we weld impressions into objects and give them a coherent reality. This is exactly what is meant by understanding. If nature were an independent thing and prescribed laws to the understanding, the laws would never be universal and necessary. The universality of

the laws of nature can be explained only by supposing that the understanding prescribes its laws to nature, not to nature as a Thing-in-Itself, but only so far as it appears in sense-perception. Universal and necessary knowledge of nature is possible only if the connections and relations of nature are absolutely identical with the modes of thought. The categories of the understanding have objective validity, therefore, because the laws of the understanding are the fundamental laws of nature. The understanding has given such laws to nature. *A priori* and therefore universal and necessary, synthetic and therefore creative, the world consists of objects under laws of the understanding. There are as many kinds of natural objects as there are categories of the understanding.

If we will examine what we call the world of nature, we shall find that many of its objects have never been perceived. Man has only partly explored the earth, and there are vast regions in space that he has never seen. He has never seen the South Pole, and the North Pole only recently; he has never seen the other side of the moon, and there are myriads of stars beyond even the reach of his telescope. These are not perceptible things, and yet they are the objects of the understanding — objects of knowledge. How is it possible? It would not be possible if the laws of nature were limited to the empirically perceived facts. It is possible because the laws of the understanding are the laws of nature and apply everywhere, whether the thing is actually perceived or not. The moon must have another side because the human understanding conceives all substances in this way; the law of cause and effect obtains beyond the stars, and at the South Pole, even though they have never been

perceived. The world of physical objects, or in other words the world of objects of the understanding, consists of both possible and actually perceived objects. If the laws of nature were prescribed by nature to the mind, then the world of objects would consist only of actually perceived objects.

But look at the world of nature a little more closely. It is one whole world with very many things in it. Why is this the case? Would it ever be so if our knowledge of the world was simply a reproduction of what the world presented to us? Of course not. There would be as many different worlds as there are human beings. The wholeness, the oneness of our world of many things to many individuals indicates not only that the understanding is the source of the laws of the world, but also that the faculties of understanding in all the millions of human beings have a transcendental unity. Knowledge has therefore a stronger proof of its validity, since what is knowledge for one human being is knowledge for all. Every individual man is conscious of the contrast between his own subjective world and the world of knowledge which he shares with other men. His own ideas have a movement of their own and have no validity beyond themselves; the ideas which he shares with others, however, are valid for all others because these ideas are beyond the control of any one man. Each individual man has to acknowledge this control of his knowledge as residing in something beyond himself. The categories of each man's understanding coöperate exactly with those of every other man. The individual man is not actually conscious of this process of coöperation in experience, but he accepts the objective necessity of it.

The individual consciousness is not therefore the

creator of the objects of knowledge; rather consciousness in general—the consciousness of humanity—is the creator. Kant is not a solipsist, but an idealist. A higher consciousness, a super-conscious Self, must be assumed to explain the compactness of human knowledge. Kant does not call this super-conscious Self the “soul” or “spirit,” but the “I think” or the “transcendental ego,” or by the more clumsy phrase “the transcendental unity of apperception.” He contrasts it with what he calls the “empirical ego” on the ground that it is the ego always identical with itself, rather than the Self at this or that particular moment. It is the Self as thinker rather than the Self as thought about. The super-conscious Self is always self-active and never dependent upon empirical conditions. It must be accepted as the postulate of all knowledge. It is the universal Self, and through it the categories of the human understanding become universalized. Just as space and time are the unifying forms of synthetic consciousness on its lower level; just as the categories of the understanding are the unifying forms of the synthetic consciousness on a higher level; so the universal Self must be postulated to explain the universality of the categories. It is a postulate only because it, not known in experience, is necessary to explain the unity of knowledge. This theoretical conception of the Self by Kant is thus very different from the traditional notion of the soul.

Has the Reason by Itself any Validity? When Kant calls his criticism the *Critique of Pure Reason*, he uses the term “Reason” in a wide sense as the whole knowing process. In the *Dialectic* he treats the Reason in a narrow sense, as if it were a special faculty like the perception or understanding. This is, of course, a con-

fusing use of terms, like his use of the term "Synthesis"; but it should cause no difficulty provided the two uses are known beforehand. The term "Ideas" is also used in two senses. In this place it has a special use. While usually an idea means any thought, here it means the synthetic form of the special faculty of the reason, just as the categories are the form of the understanding, and space and time the form of sense-perception. The synthetic forms of the Reason are the three Ideas, viz., God, the soul, and the totality of the universe.

What is the office of this special faculty of the Reason and its Idea-forms? They represent Kant's way of stating the natural tendency of the human mind to get from its knowledge the greatest possible unity with the greatest possible extension. Consciousness is a synthesis which is never satisfied in being partial and incomplete. The partial syntheses of its faculties of perception and understanding do not satisfy it. Perception and understanding tell us nothing about God, about the soul, and about the totality of the universe, for these faculties are fettered to experience. Yet God, the soul, and the totality of the universe are very important matters. So the Reason leaps over the boundaries of experience, and thinks it is justified in poaching in the territory forbidden to knowledge. The Reason is not content with the partial and relational knowledge of mathematics and of physical science, but it would deal with the unrelated and the unconditioned. Indeed, we need only search our own minds to see how true Kant is to fact. We find that we ourselves are not satisfied with conditioned things, which must be explained by other conditioned things. On the contrary, we long to know the absolutely unconditioned, which alone will explain all conditions.

We are forever seeking to make our synthesis complete, and to render a rational and complete account of what is nevertheless impossible to our knowledge.

Now it is evident that the Ideas of the Reason are not indispensable to knowledge in the sense that the categories of the understanding and the forms of sense perception are indispensable. Cause, time, and space enter into all knowledge. Physical and mathematical laws exist as facts, and need no proof for their existence. Kant asked about them, "How are synthetic *a priori* judgments possible?" But concerning the judgments of the Reason, he asks a different question: not *How* are they possible, but *Are* they possible?

The Reason and its three Ideas give what Kant calls transcendent knowledge in distinction from the transcendental knowledge of the understanding and its categories. By transcendent knowledge he means that which is beyond the limits of possible experience; while transcendental knowledge refers to knowledge about the necessary principles of experience. Kant, however, is willing to acknowledge that the Ideas of the Reason have a legitimate use. They are "regulative principles" in that, by showing what our limitations are, they also show that human knowledge is not the final goal. Their illegitimate use appears when they make a show of being true knowledge. Both science and theology will be the gainers when the Ideas are no longer used illegitimately. Kant says that he has destroyed knowledge of God and the soul "in order to make room for faith."

The Idea of the Soul. Rational psychology had taught that the soul had direct and intuitive knowledge of itself. From the time when Descartes formulated his famous "*Cogito ergo sum*," this conception of self-

consciousness has been popular. I can have myself as the direct object of my own thought. Upon the basis of such assumed intuitive knowledge that each soul has of itself, the Rationalists had ascribed the qualities of simplicity, substantiality, spirituality, and immortality to the soul.

Kant denies that we have any such self-knowledge. If we turn back to his definition of knowledge we find it to be a synthesis of a manifold. Knowledge, to be knowledge, must (1) be based upon sensations, and on that account (2) consist only of phenomena. The soul is not phenomenal, but the deepest kind of reality. How can I have knowledge of my soul? The soul is spiritual and not phenomenal, even according to the Rationalistic philosophy. Therefore the soul is precluded from being an object of knowledge. Furthermore the Rationalists' conception of the soul as simple and immortal would make it an impossible object of knowledge. An object of knowledge is not simple, but is the unity of a manifold. The unifying or synthesizing function is not an object to itself. Sensations are synthesized by space and time into perceptions; but space and time are not objects for the sensations. In understanding, therefore, the "I think," which synthesizes the perceptions into judgment, cannot be an object for the understanding.

Kant points out that we must be careful to distinguish between the transcendental and the empirical ego. We have referred to this distinction already. In Kant's criticism of knowledge he maintained that there must be postulated a "synthetic unity of apperception," if knowledge is possible. But such an ego is only a postulate; we can have no knowledge of it nor can we say

what it is. We know that the immediacy of experience or the sameness of knowledge from moment to moment demands this. This is the transcendental ego, a kind of universal synthetic background.

But this is different from the empirical ego, which I can know as an object of experience. The empirical ego is what I can know of myself at any time — a group of sensations, feelings, or thoughts. Now such groups change from moment to moment. My knowledge of myself consists only of my momentary, changing self. This changing self is not the immortal, simple, and identical soul of which the Rationalists have been speaking. The empirical self is complex and transitory; it is an object of knowledge, and it is not therefore the same as the immortal soul. “I think I” is impossible. “I think me” is possible. To make the “I” an object is to commit a fallacy.

The Idea of the Universe. The contradiction in reasoning about matters beyond the test of experience appears sharply with reference to problems about the world as a totality. The inherent self-contradiction of the reason attracted Kant’s attention very early with reference to the problems of infinity. Such self-contradictions were put into final shape by Kant in the *Critique* in the four following so-called antinomies: —

(1) The antinomy of creation. Thesis: The world must have a beginning in time and be inclosed in finite space. Antithesis: The world is eternal and infinite.

(2) The antinomy of immortality (or the simple). Thesis: The world is ultimately divisible into simple parts which cannot be further divided. Antithesis: The world is composed of parts subject to further division, and no simple thing exists in the world.

(3) The antinomy of freedom. Thesis: There is freedom; there are phenomena that cannot be accounted for by necessity. Antithesis: There is no freedom, but everything takes place entirely according to the necessary laws of nature.

(4) The antinomy of theology. Thesis: There is a necessary being either as part or as cause of the world. Antithesis: There exists neither within nor without the world an absolutely necessary being.

Critics have pointed out that these problems as thus stated by Kant are not altogether cosmological problems, but include the contradictions of psychology and theology; that is, all the contradictions of the Reason when it is used dialectically. They show how both Rationalism and Empiricism, as metaphysical theories, are in their nature contradictory. When the universe is treated as an object of knowledge, contradictory propositions can be maintained. The contradictories are both proved and refuted. In respect to the first two antinomies, both theses and antitheses are false; in respect to the last two, both theses and antitheses may be true, if they refer to different worlds. If the Ideas are applied only to the world of phenomena, they involve inexplicable contradiction. The Idea of free will and unconditioned being may apply to the world of Noumena; while the Idea of necessity and conditioned being may apply to the world of phenomena.

The Idea of God. The Idea of the soul involves us in a paralogism, the Idea of the universe as a whole involves us in inextricable difficulties and contradictions; the Idea of God cannot be demonstrated. Kant does not deny that God exists. He merely maintains that we cannot make God an object of knowledge. The

Idea of God is to Kant the expression of the need of the Reason for a perfect unity.

In one of his earlier writings Kant had constructed a conception of God, which is the same as appears in the *Critique*. God, purely as a conception, is constructed by Kant as the sum total of reality, the *ens realissimum*, who so includes all finite qualities in Himself that they do not limit Him. He is the primal cause of the possibility of all being. Now, can such an Idea have objective validity? No; the Idea of a sum total of all that is conceivable is not an object of possible experience. Only particular things or phenomena are realities for us. God as the transcending total of particular things can have only a conceptual reality and a validity for thought. The total has the reality that any idea has. This is Kant's general criticism of the dialectic Idea of God.

But the general conception of God had played so important a part in traditional philosophy that Kant felt it necessary to examine the three important intellectual proofs for His existence in order to show their falsity.

He takes up first *the ontological proof* of God's existence, which originated with St. Anselm and had been accepted by the Rationalists. The Idea of God is the idea of a perfect being. A being would not be perfect who did not exist. Therefore the Idea of a perfect being must include the quality "existence" among its predicates. The essence of God must involve His existence, because the unreality of the *ens realissimum* cannot be thought. Kant replies thus: "Being is no real predicate." It is not a quality like love, power, or goodness, for it adds nothing to the content of the

subject. "A hundred dollars contains no more content than a hundred possible or conceptual dollars." We cannot reason from the concept of the actual to its existence. The only test of actuality is perception.

The cosmological proof, which Kant examines next, is an argument from the existence of contingent phenomena to the existence of an unconditioned reality. There must be some uncaused cause of existing caused phenomena. Kant's reply is this: Cause has no meaning if it is applied beyond the bounds of experience. Within experience all causes are the results of causes, and therefore an uncaused cause is a contradiction in terms. Every existing thing is contingent. A necessary being can be only a thought, and would not be powerful. It would not be as powerful as a very great finite being which had existence.

The physico-teleological argument comes next under Kant's criticism. This argument is based upon the inference that intelligent design found in nature implies an intelligent designer of nature. Kant replies as follows: Even granting that the world exhibits the design of beauty, goodness, and purpose in its construction, such a beautiful, good, and purposeful world would only prove the existence of an architect and not the existence of a creator. Kant points out, however, that this proof is the oldest, clearest, and the most popular; and he thinks it deserves to be treated with respect on that account. The wonder and magnificence of nature must free man from the oppression of any subtle argument against the significance of nature. Nevertheless Kant feels that this proof lacks intellectual cogency; for it is possible that nature is freely acting and has power within itself.

The conclusion of the *Dialectic*, in which the Reason

attempts through its Ideas to soar beyond experience, is that such speculation has never added to our knowledge. Mere conceptual thought cannot be knowledge of the reality of the soul, God, and the world. Still, the Ideas of the reason are an integral part of the human mind, and they must have their purpose. They cannot be verified by experience, in which alone is truth, but they can regulate experience. They are "regulative Ideas" in that our experience is better governed if we act as if there were a soul, as if God existed, and as if the world were a totality of related things. Moreover, while speculation cannot prove the existence of God, the immortality of the soul, and the freedom of the will, atheistic speculation is unable to prove the contrary of all these propositions. The Ideas of the Reason clear the way for faith based on morality.

Conclusion. The *Critique of Pure Reason* is what its name implies, — a criticism of our conscious powers. It points out the limits and extent of human knowledge. In one sense, it is constructive; for it establishes against skepticism the conclusion that knowledge has a validity within its own limits. In another sense, it is destructive; for it shows against dogmatism how futile our intellectual striving is to explore many regions that have been considered the proper realm of knowledge. No knowledge is possible that is transcendent — no knowledge beyond the limits of experience. Experience ties our mental powers to itself. Experience is the boundary of the understanding. Reality, the Things-in-Themselves, are unknown and unknowable. But transcendental knowledge is possible. Within experience there are the transcendental factors that on the one hand transform sensations into phenomena, and on the

other give to these phenomena a validity for all mankind. These transcendental factors make knowledge reliable, but they add not one whit to its content. On account of these transcendental factors we can be rational with one another and members of one world of humanity. The value of knowledge is not lessened, but is defined. Our world of phenomenal existence is now accurately assessed as a world of relative reality. It is placed in its proper perspective. It is seen as our own *interpretation* of what is really real. This is very important; for although the restricted form of our mental powers withholds us from knowing reality, we may nevertheless think it. The pure intellection of reality will be of value, if in some other way its contents can be assured. Kant now points out that this assurance is found in the moral will.

The Problem of the Critique of Practical Reason: The Ethics of Kant. "Two things fill the mind with ever new and increasing admiration and awe, the oftener and the longer we reflect upon them: the starry heavens above and the moral law within." In this classic sentence Kant showed that he had no desire to humiliate the theoretical reason, which is the understanding. He was merely assigning it to its place among the powers of man, in order that it might do its proper work more efficiently. The world of morality and the starry heaven impressed Kant equally. Kant would not have the understanding chasing will-o'-the-wisps. After his criticism of the understanding he turned to the will, or as he calls it the practical reason, and criticized its functions and scope. This ethical teaching of Kant appears in his *Metaphysic of Morality* and in the *Critique of Practical Reason*. His early Pietistic education, his reading

of Rousseau, his study of the English moralists, influenced his theory of morals; while his investigations into the history of civilization, his theoretical philosophy, and his independent analysis of the ethical feeling marked the route which his ethical development took. The world of morality to Kant has primacy. In his theory it is the real world, for compared to it the world of scientific phenomena, the world of the theoretical reason, is relative.

The central idea in Kant's theory of morals is that rational spontaneity is exactly the same as freedom. This contrasts his theory with Hedonism. The value of man's life depends on what he does spontaneously, not on what happens to him. This idea of freedom is the central thought in all Kant's discussions of society. In his theory of government the republic is to be preferred to the monarchy, because of the opportunity to its citizens of spontaneous freedom; in religion the true church is composed of free beings worshipping God freely; in education self-activity is the sole principle of growth. Ethics is a system of the pure rational laws of freedom, just as science is a system of the pure rational laws of nature. If ethics has real validity its laws must be, as in science, *a priori* or derived from the reason itself, and synthetic or applicable to experience everywhere. If the moral law be valid it must be indifferent as to its content, and yet valid for all content irrespectively. The source of the principle of morals is thus the same as that of science: it is *a priori*. The principle of morals is universal in its application to experience, just as the *a priori* synthesis of knowledge is. However, just at that point the difference is to be seen between the foundation of science and that of morals — between the reason as

pure and the reason as practical. Reason in the form of knowledge is restricted to experience; but reason in the form of the will, while applicable to experience, is not restricted to experience. If the understanding is without the content of experience, it is empty and useless. The understanding must always be a synthesis of a manifold. On the other hand, the practical reason needs no content. It is sufficient in itself. It need not be obeyed anywhere nor have any concrete content in the phenomenal world. It has no reference to what is but to what *ought to be*. The world of morality and the world of phenomena are different worlds. The world of morality is absolute reality, while the world of knowledge is only relative. The world of morality is the unconditioned, while that of knowledge is conditioned by experience. Morality applies not only to human beings, but to all rational beings, if any other rational beings exist. Knowledge, however, belongs to human beings alone. The moral law has not its home in the empirical, but in the transcendent, intelligible world, which to knowledge would be the world of Things-in-Themselves.

The Moral Law and the Two Questions concerning It. The questions of the *Critique of Practical Reason* are the same as those of the *Dialectic*: (1) Is there any *a priori* synthesis? This is not the question of the *Analytic*, which is, How is an *a priori* synthesis possible? (2) Can the human being be moral and still be a part of the world of phenomena and necessity? We shall now comment on the first of these problems. If the will has validity, it must be the expression of some universal and necessary principle. Can we find any such *a priori* principle in our consciousness?

1. *The First Question concerning the Moral Law.*

If we search our consciousness, we shall find that there are two classes of incentives to action. The first are called the inclinations, or perhaps better the impulses. We may will because we desire to gain something, of use, pleasure, perfection, etc. Such an act of will is dependent upon the object that arouses it. Such an act of will would not be an example for any one else; for the circumstances that called it forth would be likely to be different in each case. For example, there is no consensus as to pleasure among individual men; and what is pleasant to one is unpleasant to another. The same is true about objects of use and ambition. In all these matters judgment does not help us in making our selection, for people who are the most discriminating often are the most unhappy and useless. All these things are indeed goods, but they are goods for the moment — goods that are dependent on something else, and not goods in themselves. They are legitimate ends enough, but they are so transitory that they cannot be valid. It is evident that when the will is governed by inclination, it is governed by an empirical (*a posteriori*), and not by a universal and necessary (*a priori*) principle. Such empirical principles are called by Kant hypothetical imperatives.

Let us look to the reason itself to see if the principle of its practice lies there; for it is certain that we shall not find the principle of universal validity for our will among our impulses. The reason is a spontaneous synthesis. It is a fact that any one may verify who will search his consciousness — that man may will from reason. The will may be impelled from within, and need not be compelled from without. The will may be

an imperative in itself, proclaiming its right because it is reasonable, justifying itself because it is reasonable, functioning because it is the function of reason. Then is the will the expression of reason. It is the reason in practice. The will is unconditioned and free because it is the unconditioned reason acting. It is then autonomous. It has then validity because the reason is universal and necessary. This kind of willing Kant calls the categorical imperative. It is the moral law. It is a law unto itself, and it is the only basis for morality because it is the universally valid reason.

The categorical imperative is unique — there is nothing like it in human nature. It is the one kind of willing that has absolute validity; and that is because it is unique in having itself for its own end. The conscience may be said to be its expression in the individual. Kant formulates the valid command of the moral law as, “Act as if the maxim from which you act were to become through your will a universal law of nature.” The various maxims of morality, like “Thou shalt not lie,” occupy the same position to the will that the categories do to the understanding. They are the forms of the moral will. Actions should proceed from maxims rather than from impulses, and the moral maxims are adapted for all beings who act rationally. A specific act may become good because the moral law, that inspires it, is good. Nevertheless “nothing can possibly be conceived in the world or even out of it, which can be called good without qualification, except a good will.” The virtues or the gifts of fortune may be good and desirable; they may also be evil and mischievous, if they are not the expression of the moral will.

2. *The Second Question concerning the Moral*

Law. This leads us to the answer to the second question, How can such a purely necessary and universal principle be effective in human life? Of what service to man is a principle so formal that if the inclinations coöperate with it, the act is no longer moral? The moral law is not only transcendental, but it is transcendent, for it does not have experience as its content. It is its own content. It is independent of all experience in three ways: (1) In origin, it contains only a formal principle; (2) In content, it contains only a formal principle; (3) In validity, it is not concerned as to whether it is obeyed or not; it declares what ought to be, even if what ought to be is never done. The question always arises about Kant's ethics, Of what service can such a remote and formal principle be? Morality takes place in the world of experience; and here is Kant's principle of morality existing in the world of unconditioned reality. Of the usefulness of such a principle Kant's explanation is not fully satisfactory. His ethics is fundamentally a rigorism, from which he is unable to escape. Duty and inclination are in antagonism. Only those acts of will are moral which are performed solely from the sense of duty. In themselves the natural inclinations are indifferent; when they oppose the moral will, they become bad; only when they are inspired by the moral will are they of ethical service. Moral action is therefore narrowed to that in which the imperative of duty is consciously paramount.

"The friends whom I love, I gladly would serve, but to this inclination incites me;

And so I am forced from virtue to swerve, since my act through affection delights me.

The friends, whom thou lovest, thou must first seek to scorn, for to no other way can I guide thee;

'T is alone with disgust thou canst rightly perform the acts to which duty would lead thee."¹

The Moral Postulates. Kant's ethical theory points away from the phenomenal world rather than toward it. To be sure, the natural inclinations take the color of the moral law when they are inspired by it; but the moral law tells us of the world of reality rather than of the world of phenomena. The moral law shows to man that he is more a resident of the world of reality than of that of phenomena. Man's nature is dual. Of its two sides—the theoretical and the moral—the moral is primary. Fundamentally man is a willing agent rather than a thinking being. He is a phenomenal being, bound to the laws of natural necessity; but he is also a real unconditioned being, because the unconditioned reason is his real self. What was implicated in the *Critique of Pure Reason* becomes explicit in the *Critique of Practical Reason*. The understanding hints at what the will makes plain. Human knowledge is a mixture of transcendental understanding and empirical sensations. God's knowledge would be pure understanding; the knowledge of the brutes is pure sensations. Human morality, however, contains a dualism; for the practical morality of man consists of the formal moral law inspiring the sensibilities although not heeding them. The will as pure reason is the activity of God; the will as pure impulses is the activity of brutes. But the true realm of man is this world of reason in which he is one with God, although he is at the same time hampered by being part of the world of phenomena.

¹ Quoted from Falekenberg, *Hist. of Modern Phil.*, p. 387. This is a paraphrase of some of Schiller's verses in *The Philosophers*, a satirical poem of philosophical theories.

1. The Postulate of Freedom. The unconditioned moral law is the basis of freedom for which all scientific knowledge seeks in vain. An unconditioned will is a free will. The will based upon the reason is based upon itself and is therefore free. The consciousness of the moral law within us implies freedom in its exercise. The "I ought" implies "I can." We can have no knowledge of freedom, for in the eye of the understanding only causal necessity rules. But the reason commands as well as knows. It states what ought to be as well as what is. Its mandate implies freedom, as its knowledge states existence. When we will, we act as if we were free, and our freedom is a postulate which cannot be proved to the understanding. Freedom is not an object of knowledge, but an act of faith. Freedom as a postulate is the condition of morality, and the primacy of the will over the pure reason is shown in the fact that it can guarantee what the understanding cannot prove.

2. The Postulate of the Immortality of the Soul. The goal of the inclinations is happiness. The goal of the will is virtue. There is no relation or correspondence between the two in this world. A man may be happy and still not virtuous; he may be virtuous and not happy. Since a man belongs to both the world of free spirits and the world of necessity, he is thwarted in reaching for his highest good in this life. His highest good is the union of virtue and happiness. If this is to be attained, another life must be guaranteed. Yet this is only a postulate and not a proof. When man wills, he wills as if he were an immortal being.

3. The Postulate of the Existence of God. Faith in reaching forward must postulate God, as alone able to vouchsafe future harmony between goodness and

happiness and alone able to distribute justly the rewards and punishments that are so disproportionate in this world. When I will, I will *as if* God existed. When I will, I create by my willing my freedom, my immortality, and God's existence. But because my will is an unconditioned law of my real being, my faith in these things is well founded.¹

¹ Kant's theory of Beauty, discussed in his *Critique of Judgment*, through which he tries to reconcile the antagonism of knowledge and morality, is omitted here.

CHAPTER XI

THE GERMAN IDEALISTS

Idealism after Kant.* Kant's criticism had been a fine dissection of the processes of knowledge. He had laid scientific knowledge open and separated it into its parts. In doing this he had acted in the spirit of his time, which had been inaugurated by Lessing. His doctrine became the point of departure of many differing systems. A modern German professor in the University of Berlin has been wont to say, "There are ten interpretations of Kant's *Critique*, which are the ten kinds of philosophy at the present time." The incoherence of Kant's philosophy made it famous. He represented the first stage of a social movement ; and like all social movements the world over, the first stage was critical, self-inconsistent, and destructive of tradition. The second stage is the one upon which we now enter, and we shall find it to be reconstructive along several lines. Criticism is always an inducement to new systematization. In Germany, after Kant, there was naturally, therefore, a great systematic movement which its intellectually virile and many-sided life was ready to express. Culture and philosophy went hand in hand. Jena was the centre of Kantianism and was in close proximity to Weimar, the centre of German culture.

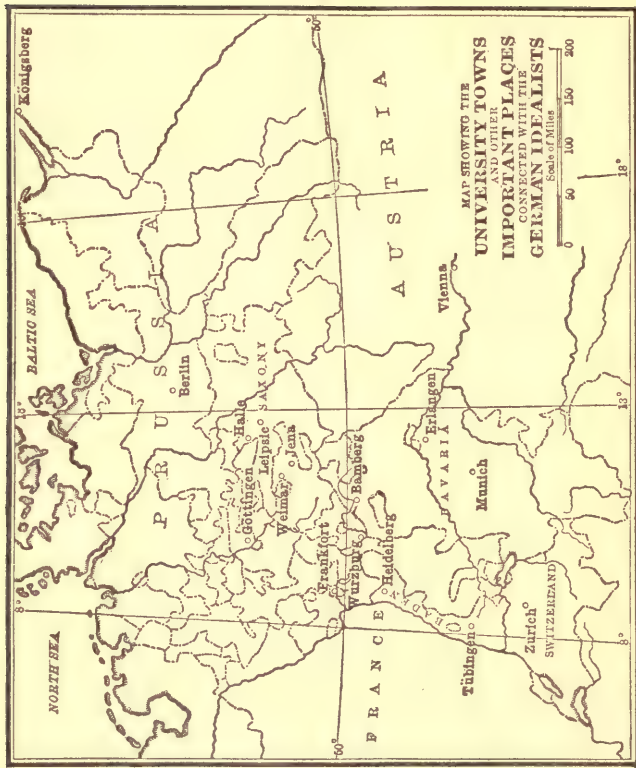
At the time that the philosophy of Kant became popular, the teaching of Spinoza was resurrected from its long sleep and introduced into Germany. Kant was

* Read Windelband, *Hist. of Phil.*, pp. 568-569.

the "all-crushing" critic; Spinoza was the dogmatic mystic. Their opposition did not amount to a contradiction, but was of the correlative sort. Kant and Spinoza became the two intellectual foci about which revolved the thought of the generation after Kant. All the succeeding philosophers show Kant's influence upon them, for they all accept his epistemology. They show the influence of Spinoza in varying degrees.

The philosophers whom we shall now meet may be divided into groups. The first group consists of Reinhold, Fichte, Schelling, and Hegel. These took the lead in destroying the Kantian conception of the thing-in-itself and in constructing a pure idealism. The second group consists of Herbart and Schopenhauer. These tried in different ways to develop a metaphysics of the thing-in-itself. A third group consisted of the old Wolffian rationalistic school, which was, however, unsuccessful in its opposition to the spread of the doctrines of Kant and Spinoza. A summary of the leaders of the German thought of this time would not be complete without mention, lastly, of the miscellaneous group of literary Romanticists, whose writings partook of the philosophical spirit. The influence of Spinoza is especially prominent in this group. Jean Paul Richter (1763-1825) was the forerunner of this movement, and it included the names of Tieck, Wackenroder, the two Schlegels, Novalis, the two Romantic women,—Dorothea and Caroline,—Schiller, and Goethe. The poet Schiller did much to popularize Kant's æsthetic and moral doctrines.

Fichte, Schelling, and Hegel. This group of disciples of Kant can be understood sympathetically only in the light of their age. They were not philosophical adven-



turers, otherwise the great representative of the age, Goethe, would not have associated with Schelling and Hegel on equal terms. They stood for the revulsion of the period against all external systems, and for the realization of a spiritual realm of free spirits. They sought not a factitious and imaginary condition, but tried rather to discover the essentials of the spiritual life. They would reclaim reality spiritually, and their only defect was in their haste in carrying out their principles. Fichte, Schelling, and Hegel are sharers in one common movement. They tried systematically to present the evolution of the world as an unbroken evolution of thought. They went back to Kant, but they were bolder than he. They sought to transcend the limitations of thought which he had laid down. They would set thought free, and, gazing in upon their own spirits, they would find there the whole infinite universe. The spiritual realm seemed to them to be wider than any one had supposed. It was a self-governing realm, quite different from the world of matter. History to them is cosmic and develops under one law of progression. It is an upward movement of assertions, negations, and syntheses. Life is cosmic spirituality. For Fichte the spirit is a cosmic battle for moral ends; for Schelling the spirit is a cosmic artistic construction, which transforms the external and internal worlds into a work of living art; for Hegel the cosmic spirit unfolds in a strict and rigorous logic, whose consummation is thought of thought. But while Fichte, Schelling, and Hegel look at the world each in his own way, they are members of one common movement toward spiritual freedom, and toward the reestablishment of metaphysics.

The Life and Writings of Fichte (1762–1814).* Johann Gottlieb Fichte was the most notable of the immediate disciples of Kant. In contrast with the undisturbed and uneventful scholastic retirement of his master, Fichte's life looms up as a series of conflicts, sometimes with extreme poverty and sometimes with hostile forces created by his own stubborn and irascible disposition. Fichte's external life was throughout one of curious contrasts, both of tragedy and romance. His love for the moral and theological appears in his early youth in his voluntary self-denial and in his sermons to the geese which he was herding. Again, he made preparation to become a preacher, but his intellectual training in the university drove him to abandon it. He became a necessitarian and tried to square his life with his philosophy, although it weighed his heart down. Then came the so-called "Atheistic Controversy" when he was professor at Jena, and his defiance of the authorities and his dismissal. In the tumultuous days at Berlin he turned his metaphysics into patriotic appeals, and would have joined the army, but his death intervened. The inner development of Fichte, too, was different from that of Kant. Kant's inner development was coincident with his long life. Fichte, on the other hand, at the age of twenty-eight had read and accepted Kant's philosophy, and four years later had created his own. This was only slightly modified in his later years in the direction of the pantheism of Spinoza. Kant's life was apart from the political current of his time,

* Read Royce, *Spirit of Modern Phil.*, chap. v; Eucken, *Problem of Human Life*, pp. 486–490; Rand, *Modern Classical Philosophers*, pp. 486–496, 516–535; Windelband, *Hist. of Phil.*, pp. 579–581.

while his doctrine became fundamental for all future philosophy. Fichte's life and philosophy were more expressive of his time, but less lasting in their influence. Fichte is the philosophic preacher to his time; Kant is the instructor of all time.

Fichte's life may be divided into four periods, which are marked by certain external events.

1. *His Education* (1762–1790). He was the son of a poor ribbon-maker. As a boy he worked for his father, and again at the equally humble employment of herding geese. It was during this latter occupation that his wonderful memory attracted the attention of a philanthropic nobleman, who gave him means for an education. Fichte studied theology, philosophy, and philology at Leipsic and Jena; but he had to face extreme poverty again upon the death of his benefactor. In 1788 he got a position as tutor in Zurich, and here he met Pestalozzi, Lavater, and his future wife, a niece of the poet, Klopstock. During this period his philosophy was a necessitarianism, which he had evolved from the theology in which he was trained and his reading of certain books on Spinoza.

2. *Discipleship of Kant* (1790–1794). Fichte returned from Zurich to Leipsic, and in the capacity of tutor in philosophy he assisted a young man in the reading of Kant's *Critique*. He was at once converted heart and soul to the Kantian doctrine. In 1791 he called on Kant at Königsberg and submitted to Kant his *Critique of Revelation*. The next year he published this work, and by some fortunate accident his name as author was omitted from the title-page. The work was attributed to Kant, and was widely read as a masterpiece by Kant. Kant had to correct the mistake, which,

however, made the real author, Fichte, famous. So he returned to Zurich in 1793 to marry Fräulein Rahn, who was herself now in comfortable circumstances.

3. *His Life at Jena* (1794–1799). The year 1794 was another milestone in the biography of Fichte. In this year he was called to Jena, then the principal university of Germany, to succeed Rheinhold. In this year he published his philosophy in his best known work, the *Wissenschaftslehre*. He remained at Jena only five years. At first his popularity exceeded that of the popular Rheinhold, but he soon filled his life with controversies. He quarreled with the students and the clergy, and in 1799 the so-called “Atheistic Controversy” arose, in which charges were brought against his teaching as atheism. Brooking no criticism either of his teaching or of his official position, he defied the authorities of the university and was dismissed.

4. *His Life at Berlin* (1799–1814). In 1799 Fichte went to Berlin to live. At first he had no academic affiliations, but he found a large and sympathetic public, to whom he lectured. He was warmly received by the circle of Romanticists, — the Schlegels, Tieck, and Schleiermacher. His philosophical system got little development; but the influence of Spinoza appeared in his teaching. He lectured upon the ethical and religious aspects of his philosophy, and upon political and social subjects. In 1808 he delivered his famous *Addresses to the German People*. In 1810 the University of Berlin was founded and he was called to the chair of philosophy, but he was connected with the university only two years. For in 1812 came the call to arms, and Fichte was with difficulty dissuaded from enlisting. He remained in Berlin and preached to the soldiers in

camp. His wife volunteered as hospital nurse and contracted a fever, from which she recovered. Fichte, however, who nursed her through her sickness, died of the disease in 1814.

The Influences upon Fichte's Teaching. Any estimate of the influences upon Fichte would be distorted that did not recognize the calibre of the man himself. Fichte was essentially a puritan reformer. He was impetuous and life-loving, but withal a simple-minded man. All the philosophical influences which he was capable of feeling would naturally be turned by him into ethical and religious sermons to reach the life of men. He must be thought of as the crusader armed with abstract truths, which he wields with a giant's strength for the moral uplift of man.

It was natural then that the two principal influences upon Fichte's doctrine should be Spinoza and Kant. To be sure, such writers as Lessing, Rousseau, and Pestalozzi furnished him much material in his early years, and the Romanticists in his later years. His wife, Johanna Rahn, was also a source of power to him, and through her influence after their marriage his aim became clearer and his character lost much of its harshness. But the two great influences upon Fichte were the two great philosophical forces of this time, Spinoza and Kant. Fichte's philosophy has been described as "Spinoza in terms of Kant," and also as "an inverted or idealistic Spinozism." The influence of Spinoza upon Fichte's thought is seen at both ends of his life. At the beginning he was an amateurish Spinozist. He found that the theological training of his boyhood was a necessitarianism like Spinozism. He lost his faith in Christianity, and he was unhappy because he found Spinoza's



doctrine of necessity was intolerable and yet unanswerable. Then he read Kant and found a solution of his difficulty without having to change the doctrine of Spinoza. For Kant had placed behind the necessitated world the free spirit. In the last period of Fichte's life the influence of the mystical side of Spinozism appeared, through Fichte's intercourse with the Romantists in Berlin.

Why We Philosophize. To Fichte philosophy was distinctly a personal problem, and we feel in all his words that he is wrestling with his own nature. He found in his mind two very different classes of ideas, and he was certain that philosophical problems arise from their antagonism. On the one hand there are the ideas about the world of physical nature, which are only our experiences under the law of necessity. On the other hand there are the ideas of the individual consciousness, which are contingent and voluntary. Which of these two classes of ideas is primal? Fichte felt that all philosophical curiosity arose from the contrast of these two classes; the solution of philosophy and the satisfaction of our philosophical curiosity would be reached only by the reduction of one class to the other. Fichte calls the philosopher a dogmatist who seeks to reduce voluntary ideas, which compose our individual consciousness, to the necessitated series. Spinoza sought to do this, and the philosophy of Spinoza depressed Fichte as intolerable. But there is the alternative to the philosopher to explain the necessitated series by voluntary consciousness. This is idealism. The moment a man begins to reflect, he must choose between dogmatism, *i. e.* necessitarianism, and idealism. He is always confronted by an Either-Or, a choice between freedom and necessity.

The Moral Awakening. In his early life Fichte saw to his despair no escape from the philosophy of necessity. When he read the *Critique of Pure Reason* a great light came to him. He flung himself immediately upon the side of idealism. He saw that necessitated events were phenomena, and therefore the creations of consciousness. Consciousness cannot be the slave of necessitated events. Kant's philosophy was to Fichte a work of art of the free spirit. The world cannot contain man and compel him. Man may be oppressed by the world, but he can see that such oppression is not real. In his *Vocation of Man* (1800) he gave in autobiographical terms the story of the awakening and development of the individual mind. At first one is overwhelmed by the sight of the necessitated events of the world. Next he comes to believe that all events are mere appearances, and he is weighed down by the still greater despair that no reality whatever exists. Finally he finds the rock of hope amid the sea of appearances. He finds an ultimate and irreducible fact in the categorical imperative of duty. "Thou must" is above necessity, above the phenomena that are always reducible to other phenomena. Duty means the freedom of my inner life. That there is always lodged in me a duty to perform, shows that I am superior to phenomena, that I am a citizen of the supersensuous world. This "heaven does not lie beyond the grave, but already encompasses us, and its light dawns in every human heart." "That I myself am a freely acting individual must be the fundamental thought of every true philosopher."

Every one must therefore choose between dogmatism and idealism, if he would not fall a victim to skeptical despair. Two motives will determine one's choice:

one theoretical, the other practical. The primary motive is the practical one, and since dogmatism and idealism are equally consistent systems, man's choice will depend mainly on the manner of man he is. If the individual has a high sense of duty, he will be disposed to believe in his moral control over all his experiences, however much they may seem to be necessitated. Conscious freedom will seem to him to be the only satisfactory explanation of practical life. But then there will be the additional theoretical motive. The man that chooses either dogmatism or idealism must theoretically make his world consistent. The dogmatist cannot explain the conscious facts in terms of determinism; but, Fichte thinks, the idealist can explain the necessitated facts in terms of consciousness. At any rate the idealist has the task of rethinking his scientific knowledge.

The Central Principle in Fichte's Philosophy. How does Fichte attempt to draw up a consistent theory so that he can overcome the dualism between the necessitated facts of physical nature and the free states of consciousness? As an idealist he must rethink the knowledge of science. But how is this to be done? What principle will he place at the central point of consciousness, so to illuminate the manifold problems of life that life's dualism will prove to be only apparent after all? Here as answer we find the outcome of Fichte's struggle with his own nature. He believed that the principle of the true philosophy of life comes from the study of consciousness. The nature of the Ego is the subject for philosophical study. What is the essence of the Ego or the personality? It is activity, will, vitality; not intellect and changelessness. But can we not get beneath the activity of the personality and ask, Why does it act?

Yes, *because it ought*. When we have said this we have said all. The essence of the vitality of the Ego is moral obligation. *Ought* is the foundation of life; it is ultimate ground of existence. If we ask why there is an ought, the only answer is, there ought to be. The duty exists that you and I shall have a duty. In order to be, the Ego must act; and it acts in response to duty. This activity is free activity. The Ego is unconditioned because it is acting out its own nature. Thus when Fichte is talking about the Ego, the ought, the moral law or freedom, he is talking about the same thing in different guises. Fichte placed moral freedom as the central principle of metaphysics and tried to rethink the world of necessitated experiences in terms of moral freedom. He attempted to construct a monistic view of life, of which the free moral personality should be its inner vitality. Monism and liberty was Fichte's war-cry. Reality is in us; there can be no reality independent of us. The morally free Ego is the central principle of life.

Such a message to the German people would appeal to two sides of their nature. It would appeal as a metaphysics to the mysticism in their blood; it would find also a practical response in the humanitarian and revolutionary spirit of that revolutionary time. Be up and be doing, for reality is not what people commonly think it is. Your environment is only apparently an independent existence beyond your control. Reality is not static. Rethink it and make it dynamic. Not being, but acting, and free acting, is reality. Such was Fichte's sermon to the Germans of his day. His theory can be stated in the terms of the Greek Heracleitus, "All things change," provided the change be thought of as moral activity. To philosophize was to Fichte to think the

universe as free moral activity, to see inactivity nowhere, to free ourselves from dualism and to participate in the universal freedom. Freedom is higher than truth. Existence is derived from thought in action, and thus our existence and our environment may be shaped by us. Thought is essentially action, and we shall educate the world only through our own activity.

The Moral World. Fichte had a philosophy, the principles of which he repeated over and over again as a kind of habit. He was a man of few but great ideas. He was inspired by some general conceptions which he did not carefully elaborate. His philosophy can be expressed in few words, and his point of view is not difficult to feel. Nevertheless, there is great difficulty in restating his meaning. He maintained that Kant's early philosophy was not truly Kantian, and that he, Fichte, represented the true Kant. In taking this stand he was obliged to do two things: to explain away the thing-in-itself, and to rethink the world of necessitated nature in terms of the activity of the morally free Ego.

If we start from the heart of existence — the active Ego — the world spreads out before us as a system of reason which has been created by the activity of the Ego. On this account Fichte's philosophy has been called subjective idealism. In such a scheme of things there is no place for the Kantian thing-in-itself. All Being is only an extended product of the active Ego and the object of its knowledge. The Ego acts because it must, and then reflects upon its activity. Its knowledge of its activity is in grades from sense-perception to complete knowledge. Now Kant had referred sensations to the thing-in-itself as their source. But this is unnecessary, since sensations are only the activity of the Ego. Sensations

are the groundless, free act of the Ego. They appear to be "given," because they appear to be foreign and coming from without. They are, however, only the lowest form of the activity of the personality — they are unconscious self-limitation of the Ego. The sensations have no ground that determines them, but as the lowest form of the activity of the Ego they are absolutely free. Thus the thing-in-itself becomes superfluous, since it is not necessary to account for sensations.

The next task for Fichte is to rethink the series of necessitated events of physical nature. If we will look at these events from the point of view of the willing Ego, which is reality, they will be seen to be products of purposive action. Together they will make a world of connected rational activities rather than a mechanical system. The necessity in nature is not causal, but teleological. It is not the necessity linking the series of events together, but rather the linking of each event to the acting Ego, and thus the connecting of the whole series. Take the idealist's position and this illuminating thought will come to you: a thing is not because something else is, but in order that something else may be. As moral beings we have tasks. As moral beings we are the impersonation of duty, and duty is reality. These phenomena that so trouble us because we think them necessitated are only contingent upon the performance of our duty. The existence of one thing is not to be explained by the existence of another, but by the existence of me, an Ego. Phenomena are little steps toward great ends. When I rethink the world I see no causal relationship, but the teleological means for the achievement of purposes by striving souls. History and nature — these are the material created by human beings for their own

activity. We not only create our human drama, but we create also the stage upon which it is performed. Being is not the cause of Doing, but Being is created for the sake of Doing. Whatever is, is to be explained by what ought to be. "The world is the theatre of moral action." "Nature is the sensible material of duty."

God and Man. If Fichte regarded the human personality from this moral height, he would naturally give a new meaning to God, the absolute reality. God is not a substance, a something that "is." God is the universal moral process, the moral world-order. God is the Universal Ego, a free, world-creating activity. God was conceived by Fichte as Matthew Arnold's "something not ourselves that makes for righteousness." When I find in myself that duty is reality and not this or that fixed and crystallized thing, when I find that my real self is moral functioning and not a tangible form of flesh and bones, then I take the next step. I then find that God is universal duty, universal moral functioning, in which I am participating. We are not only part of God — yea, we are He. As the Holy Writ says, "Ye are Gods." The absolute Ego manifests Itself in our poor finite Egos. How dignified our humble lot is made by thinking that in our acting, God is acting! We are fighting God's battle, and His victory is not won except as we win. Duty in us is the clarion voice of God, and we are persons so far as we express that voice. It matters little whether I speak of my own duty or the moral purpose of the world. They are the same thing.

This enjoined labor upon every rational soul to perform his duty of reaching high ideals, through his humble tasks, of "fighting the good fight and keeping the faith," is to Fichte the meaning of coming to a con-

sciousness of one's self. What is myself, my real self? It is not this phenomenal existence with its appearance of necessity. It is the eternal and everlasting duty within me. What is it to think myself? It is to think my duty; and to think duty is to think God. When I come to consciousness of myself, the cosmic order is coming so far to self-consciousness. Reality is so far attained. History is the record of this process of the moral order coming to self-consciousness.

In his later teaching Fichte succumbed to the victorious Spinozism of the period. He conceived God as an Ego whose infinite impulse is directed toward Himself; he conceived finite things as products of this infinitely active consciousness. The finite products find their vocation in imitating the infinite producer, which imitation consists not in the activity of producing other finite things through the categorical imperative, but in the "blessed life" of sinking into the infinite.

What a Moral Reality involves. Since reality is this process of moral development, its conditions will arise out of itself and be its own creation. Since the world is reason coming to itself, it must develop its own conditions out of its original task. All the acts of history must be explained as the original "deed-act," as Fichte calls it. Fichte thought that the whole business of philosophy consists in showing what is involved in this original "deed-act" of consciousness, this attempt of consciousness to think itself. Since self-consciousness is reality, this will be the same as showing what reality involves.

1. In the first place, consciousness always involves the consciousness of something else. To use Fichte's technical language, the Ego posits itself (since it is a moral process) and in the same act it posits a non-Ego

(which is the necessary object of consciousness). "The absolute Ego asserts a distinguishable Ego against a distinguishable non-Ego." It is like a boy who feels the call to become a lawyer. He asserts himself in that call, and at the same time in that assertion he creates his life's career. His career in the law is his non-Ego. Both the Ego and the non-Ego are creations of that absolute Ego, which is the ever surging duty or God. While both the Ego and the non-Ego are the creations of that absolute Ego, which is cosmic duty or God, yet each limits the other. Ego and non-Ego are correlative terms; both originate in the free act of God. The world is, therefore, the creation of the real self as the condition of its own activity. It even creates its sensations as the given materials of its knowledge. The world is the material of duty put into sense forms. While we create matter in order that we may be active in it, the spatial and temporal forms, its categories, limit our activities.

2. In the second place, this awakening of the Ego to a consciousness of itself involves a curious contradiction. Duty is by nature contradictory. Duty calls me to know myself and to perform my task, and yet in that call duty prevents the task from being performed. In attempting to know duty completely I am always under the condition of an opposing and limiting non-Ego. The non-Ego is essential to the Ego and at the same time thwarts the Ego's full knowledge of itself. So long as the non-Ego exists, no complete knowledge of myself is possible. A limiting non-Ego makes the Ego limited, and therefore prevents complete knowledge and fulfillment of duty. Duty calls upon us to perform a task, but under conditions such that it cannot be performed. So long as the boy strives in his legal profession, duty appears; but

so long is duty rendered incomplete. Moral progress is endless, but that only shows how contented we must be with the process of striving and not with some static condition. To strive morally is reality ; the goal is nowhere. The contradiction is seen in the eternal contrast between what is and what ought to be, between the moral task and the actual performance. We are under the requirement to perform, and in the requirement is the restraint. The dialectic process is endless. First there is the stage which Fichte calls the Thesis in the call of the absolute Ego. The next stage is the Antithesis, seen in the mutually limiting Ego and non-Ego. The next stage is the Synthesis, in which some accomplishment is gained, but which becomes only the Thesis for another Antithesis ; and so on infinitely. The terms Thesis, Antithesis, and Synthesis are important, for they are employed by Fichte's successors, Schelling and Hegel.

Romanticism.* " We seek the plan of nature in the outside world. We ourselves are this plan. Why need we traverse the difficult roads through physical nature ? The better and purer road lies within our own mind." (Novalis.)

Romanticism was a great European movement which lasted about a century from 1750 to 1850 ; and it would be perfectly justifiable to speak of the intellectual period in Germany from Lessing to Heine as Romanticism. Rousseau and the French Revolutionists, Ossian, Scott, Wordsworth, Coleridge, Byron, Shelley, Keats, and Wagner were in the forefront of this worldwide movement. The Storm and Stress Period was a

* Read Beers, *History of Romanticism in Eighteenth Century*, pp. 1-25 ; Beers, *History of Romanticism in Nineteenth Century*, pp. 132-139.

phase of it; and so even was the Period of Classicism that followed. Goethe and Schiller were Romanticists, and Classicism was only an episode in their lives. The Period of German Classicism (1787–1805) was different from the Classicism of the seventeenth century, because it was thoroughly infected with Romantic germs. If one is to take account of the different phases of German thought after Lessing, one mentions first the Storm and Stress Period, then Classicism, and then the Romantic movement proper from 1795 to 1850. Some of the literary names connected with the Romantic movement have already been mentioned, — Richter, Tieck, Wackenrode, Novalis, the Schlegels, Schiller, and Goethe. Fichte, Schelling, and Hegel are the philosophers of this Romantic movement and embody its spirit in different degrees. The true philosophical exponent of it is Schelling.

Romanticism is an accidental and inadequate name for this world-wide literary and philosophical movement. In general it means the exalting of the individual, “who admits no law above himself.” The Romantic individuality is dominated by unrestrained fancy, is animated by feeling and passion, and prefers the vague and mystical to the clear and defined. In literature Romanticism is contrasted with Classicism. The Classicist emphasizes the type, the Romanticist the individual. The Classicist defers to traditional form and law; the Romanticist has no common canon even with other Romanticists except the right to disagree. The only common principle among Romanticists is subjective — the truth of the individual intuitions, which in the case of the historical Romanticists found expression in the play of fiercely egoistic wills seeking self-realization.

The historical Romantic movement was a passionate and mighty reaction against the previous shallow intellectual life with its narrow conventions. Romanticism was a revolt against the period of the Enlightenment, which scorned what it could not define. These Romanticists were discontented with typical ideas and with logical reasoning about them. They challenged the universe, because it was not obedient to their egoistic cravings.

It is very clear what the dangers as well as the greatness of this German Romanticism were. The dangers of the movement lay within itself, in its aristocratic exclusiveness, its reluctance to face the forces of evil, its lack of strength and of firmness of character. Yet the age itself may be largely responsible for these. Its strength lay also within, in its deepening of self-consciousness, in its rejuvenating and ennobling the whole expanse of being, in its intellectual conception of man's most intimate relations to himself, to his companions, and to the world around him. Sometimes, indeed, the spiritual force of this small band shows itself quite capable of strong action in the outer world. Napoleon himself ascribed his downfall not primarily to diplomacy or to the bayonet, but to the resistance of the German Ideologists.

Goethe as a Romanticist. We have already spoken of the resurrection of Spinoza's doctrine and its acceptance as a model by this time. The Romanticists, following Spinoza, conceived of nature as a unity in which the divine manifests itself in its fullness. Nature is Reason in Becoming. So fitting, indeed, for the time was Spinoza's pantheism that Goethe, the literary exponent of the period, made it the central principle of his poetic thought. Goethe can be understood only as the Romantic Spinoza. The philosophy that underlies

Goethe's work is noted here as an example of the Romantic movement.

Like all the Romantic philosophy, Goethe's philosophy was a personal revelation, and not a formulated doctrine for universal application. Like all the Romanticists, Goethe was a highly strung personality, and his philosophy was conceived to be true by himself only for himself. He did not look upon the trivialities and the conventions of life as mere limitations of his personality, but as a fall from truth. *Truth is realized by man when he is in vital interchange with the universe.* Therefore Goethe was in full agreement with Spinoza in longing for emancipation from human littleness and in his desire for the infinite. Goethe differed from Spinoza's pantheism in his own way; for Goethe conceived man to have an independent function in the infinite. Man makes his contribution to history and does not merely passively appropriate the products of the world around himself. Man reacts upon the world, he resists it, and becomes alive to the joy of it.

To Goethe the world had a soul, because the world gives clearness to the human soul. Nature shows how closely she is related to us by disclosing to us her inmost soul. Here in Goethe is a mysticism in modern garb, an artistic view of life. Besides, the world expresses human experiences on a large scale, and the way to nature's heart is not to go behind nature-phenomena, but through them. The facts of nature are real, and our own life is like nature. Both move in prescribed orbits, but both are empty if the connection between them is severed. We find therefore the secret of our life by returning to nature, and this is a return to the spiritual whole of things. At different times Goethe

was pantheist, naturalist, and theist. He believed that all finite life is divine, and is a synthesis of opposite forces, in which individuality has a place. Humanity is ruled by necessary types, yet within them the individual is free. Such free individuals take their objects from the world, spiritually endow these objects, and thus make art and ethics very close to nature.

Romanticism in Philosophy.* The Romantic movement was intrinsically speculative and naturally had its representatives in philosophy, which is systematic speculation. Fichte and Hegel, but especially Schelling, are the philosophical exponents of the revolutionary spirit of the age. All three were demonstrators in philosophy of the truths and dreams held by ardent souls; but Schelling's system reflected the spiritual upheaval. Fichte belongs to the Romantic movement inasmuch as he strives for the infinite, but Fichte separates himself from that movement by distinguishing between consciousness and its content. The true Romantic spirit appears in Schelling — the impulse to revel in intuitions, in symbolism, to run riot first in nature and art, and afterwards in religion. The Romantic philosophers were friends and sympathizers of the Romanticists, living in the same city, sometimes in the same house, and were members of the same spiritual family. But it must be remembered that there was not one Romanticist leader with many imitators, but that each Romanticist followed out his own line. When we speak of Schelling as a Romantic philosopher we mean that he gives the speculative tendency of the many Romanticists his own clearer definition and formulation. The background of Schelling's philosophy is the source of

* Read Royce, *Spirit of Modern Philosophy*, ch. vi.

the Romanticists' motives. It may be stated under three headings: —

(1) Man's ideal is to expand his soul until it becomes one with God.

(2) There is no Thing-in-Itself. The finite world is only a limitation of the ego.

(3) Man and the nature world are essentially one. Man has a knowledge of nature when he has a knowledge of himself. In reading his own history he reads the history of nature. The Romanticist drew a veil from the face of nature and found there his own spirit.

The Life and the Writings of Schelling (1775–1854).^{*} Of Schelling's long life of seventy-nine years, the fifteen years from 1795 to 1810 were the most important productive period. Like Berkeley, he was a many-sided genius, and began to write brilliantly in his early years. He published his first treatise at sixteen years, and before he was twenty he published several essays of distinct merit on Fichte's philosophy, the success of which led to his call to the chair of philosophy at Jena. All his technical works were written in an academic atmosphere. After 1812 he, so fond of writing, became silent. He even ceased to deliver lectures at the University of Berlin when he found that notes of them were published without his consent. Hegel, in commenting on Schelling, said that Schelling liked to carry on his thinking in public.

Schelling and Fichte may be studied together because they are alike in developing one side of Kant's doc-

^{*} Read Eucken, *Problem of Human Life*, pp. 457–464, 490–494; Wernaer, *Romanticism and the Romantic School in Germany*, pp. 132–143; Rand, *Modern Classical Philosophers*, pp. 535–568.

trine. But their careers were very different. Contrasted with Fichte's life of poverty, struggle, self-created antagonisms, long-delayed victory, and devotion to rigorous morality, is Schelling's life of early academic success, prosperity, and romantic friendships. The life of Kant was one of inner development and outward routine; that of Fichte of early formulated thought and external warfare. Schelling's life, on the other hand, does not strike us as one of development, either externally or subjectively. It was rather a series of changes. He looked upon his own philosophy as a development, but its linkage is thread-like, due to his wonderful imagination and mobility of thought. With his great suggestive power, he depended more upon analogy than logic; his argument and his philosophy lie before us as if ever in process of continuous readaptation. Schelling possessed all the fervor and insight of the Romanticists, and all their egoism and caprice. It is even more difficult to characterize his philosophy than that of Spinoza. He was monist, pantheist, and evolutionist; parallelist, theosophist, and believer in freedom; he accepted the doctrine of the Trinity; in all this he was the true Romanticist. Schelling's philosophy of nature is intelligible only in the light of the great artistic ferment of his time and as the expression of his strong artistic personality. His ideal of artistic insight into nature became for him his idea of science. Reality is nature, and nature is a work of art, self composed and self renewing. The endeavor of Schelling was to fashion all human existence into artistic form. At first he looked upon nature as rational, but later he was impressed with its irrationality.

Schelling's life may be divided into six periods on the basis of the changes of his thought: —

1. *Earlier Period (1775–1797)*. Schelling was the son of the chaplain of a cloister school near Tübingen, and was educated in history and speculative science in the university of that town. After his university education he held the position of tutor in a nobleman's family at Leipsic for two years. During this time he listened to lectures at the University of Leipsic on medicine and physics. Before he was twenty he had published several notable essays on speculative matters, among them *The Ego as a Principle in Philosophy*; and in 1797 *Ideas for a Philosophy of Nature*. These led to his call to a chair in the University of Jena. Schelling was early acquainted with the doctrine of Leibnitz, but the most powerful influences upon him at this time were Kant and, especially, Fichte.

2. *The Philosophy of Nature (1797–1800)*. Schelling was called to Jena through the influence of Goethe, Schiller, and Fichte; and it was here that he completed what he had begun at Leipsic — the supplementation of Fichte's philosophy with a *Philosophy of Nature* (written 1798). He was colleague of Fichte and afterwards a helpful friend of Hegel. Jena was then the centre of the Romantic movement, the moving spirit of which was Caroline, the wife of August Schlegel. Schelling was very successful at Jena as lecturer, and his publications at this time were very many.

3. *The Transcendental Philosophy (1800–1801)*. While still at Jena he felt the influence of Schiller, who had united the ideas of Kant and Goethe into an Æsthetic Idealism. Under this influence Schelling reconstructed the Fichtean philosophy of the Ego on a Romantic basis.

4. *The Philosophy of Identity* (1801–1804). Schelling now undertook to put his recast philosophy of Fichte upon the basis of Spinozism. This caused a break between him and Fichte and Hegel. In 1803 he married Caroline, the divorced wife of August Schlegel and the idol of the Romantic circle, and the same year accepted a call to the University of Wurzburg, where he remained three years (1803–1806).

5. *The Philosophy of Freedom and God* (1804–1809). The doctrine of Schelling now became mystical and showed the influence of Boehme. In 1806 Schelling was called to the Academy of Munich.

6. *The Philosophy of Mythology and Revelation* (1809–1854). This may be well called Schelling's period of silence, so far as publication was concerned. He who had poured forth his thoughts in print now became averse to publishing anything. He accepted the call to Munich in 1806 and remained there, excepting his seven years at Erlangen, thirty-five years (until 1841). During this time he was much under the influence of Aristotle, neo-Platonism, and the Gnostics. He had first an official position at the Academy of Munich; then he spent seven years as teacher at the University of Erlangen (1820–1827); and in 1827 he entered the newly founded University of Munich. In 1841 he was called to Berlin to counteract the Hegelian movement, and he became a member of the Academy with the privilege of lecturing at the University. He was now sixty-six, and he spent the remaining years in elaborating his system. He died in 1854.

A Brief Comparison of Fichte and Schelling as Philosophers. We have already spoken of the relation of Fichte and Schelling to the Romantic movement.

What is their relation as philosophers? Fichte's idealism is commonly called subjective because of his emphasis upon the Ego at the expense of the non-Ego. In non-technical terms Fichte gave no adequate philosophy of nature; for his assumption was that nature is only material for the reason. Nature to Fichte was only the stage upon which the reason could act. Fichte's keen insight into human affairs blinded him to the meaning of nature. The contribution of Schelling to the philosophy of nature was not therefore unwelcomed by Fichte; for he saw that such a philosophy could easily be developed from his point of view, provided nature be regarded as a unity in the service of the reason. *In brief, the development of Schelling over Fichte was this:* (1) Schelling added a science of nature to Fichte's science of mind; (2) Then he transformed Fichte's philosophy of mind into an æsthetic philosophy of mind; (3) Then he tried in several successive attempts to find a common metaphysical ground for his own philosophy of nature and his recast philosophy of mind. While the method of Schelling was not different from that of Fichte, his general motive was different; for to Schelling the universe must not be regarded as the creation of an active moral Ego, but as having an existence of its own. While for Fichte to think is to produce, for Schelling it is to reproduce. To the investigating mind of Schelling experience and observation are the sources of knowledge; yet it must not be inferred that Schelling's philosophy was inductive or that he *derived* the Ego from the non-Ego, as if the Ego had been evolved from the non-Ego. These were the days before the modern theory of evolution. Mind does not have its source in nature; on the con-

trary, mind and nature have a common source in the Reason. They have a parallel existence and develop according to the same law. Nature is existing Reason, mind is thinking Reason.

Schelling's Philosophy of Nature. Schelling started with Kant's early conception of nature as dynamic — that matter exists through the interplay of the forces of attraction and repulsion. The human organism is the highest expression of such dynamic activity. In the world there is nothing dead. Matter is the lowest expression of dynamic activity; the vegetable is next, the animal next, and the human brain is the consummation of this process of productivity. Thus matter on the one hand and mind on the other are the two poles of reason in nature. Everything is life movement; everything is the oscillation between two extremes, the interplay of contrary but correlative forces. In romantic terms, nature is the Self in Becoming. Nature is a living whole which manifests itself in an ascending scale of rich and varied forces between matter and mind.

Such a conception met consistently the demands of this Romantic period.* The high expectations of the physicists of the previous century had been unfulfilled, for they had not succeeded in obtaining a purely mechanical explanation of the derivation of life from matter. Darwin was still to come. Medicine, which was at that time showing great progress, offered no argument for the mechanical conception of the world. There had, however, been many discoveries at this time in electricity and magnetism; and these mysterious qualities seemed to repudiate the mechanical theory. Vitalism thus usurped the place of mathematics. Spinoza rather

* Read Shelley, *Love's Philosophy*.

than Galileo was the model of the time. Nature must be conceived as a unity in which the Divine manifests itself in its fullness.

All these influences appear in Schelling's first philosophical undertaking. He states philosophically what Goethe states poetically. Nature is not to be described in quantities nor measured by rule. It transcends measurement. It is to be truly understood only as productivity having organic life as its goal. Nature is rational life, not mechanism. Everything has its logically determined place. Schelling used the natural science of his time to show how the connection of forces and their transformation into one another were the manifestation of divine cosmic purpose. The gaps he filled in with teleological conceptions. He used morphology with the same purpose as Goethe. He felt the same need of a deeper meaning of nature than mathematics can give — the need of a rational purposeful meaning. Goethe shows this in his "Theory of Colors" when he looks upon colors not as atomic movements, but as something essentially qualitative. Schelling, too, was not an evolutionist in the modern sense, and he did not regard one species as derived from another. He thought of species in an ascending scale, to be sure ; but he saw in each only the preliminary stage to the next, and all as the divine expression. One accomplishment of nature merely precedes another in time.

The nineteenth century looked back on this Romantic science as merely a fit of excessive sentiment that has impeded the modern work of serious investigation. Yet it may safely be said that the nineteenth century has not settled the question, and that nature will always need a rational as well as a mechanical explanation.

Schelling's Transcendental Philosophy. *The Philosophy of Nature* ends with the explanation of sensitivity; and it is there for Schelling that the philosophy of knowledge begins. When three years later Schelling was ready to reconstruct Fichte's philosophy of mind — when he was ready to break with Fichte — he was influenced by the great change that had come over the thought of the Jena idealists. This change was due curiously enough to the philosophy of the intimate friend of Goethe, the poet Schiller. Here again the proximity of Weimar and Jena was the cause of the reciprocal influence of philosophy and literature. Schelling was the first to give this new thought its philosophical expression. The theory of Schiller is an æsthetic idealism in which the artistic function supplants the moral law of Fichte and Kant, and is the fundamental reality of life.

When Schiller * reshaped Kant's moral philosophy he was not concerned, as might be supposed, merely with æsthetic results, but with conduct, history, and the whole system of metaphysics. The problem always uppermost in Schiller's mind was the place of art and beauty in the whole system of things. So when he tried to reconcile Kant's theoretical reason and Kant's practical reason, he naturally looked to art for such reconciliation. What is there that is both necessary and free? Beauty! "Beauty is freedom in phenomenal appearance." Æsthetic contemplation apprehends the beautiful object, and yet in so doing it transcends all the trammels and bonds of experience. The artistic ecstasy is freedom in necessity. It is independent of moral as well as intellectual rules. Beauty is as little an object

* Read Schiller, *Artists*; *Letters on Æsthetic Education*.

of sense as of will. It does not have the quality of need that belongs to sense phenomena, nor of earnestness that accompanies morality. Sense is obliterated; the stirrings of the will become silent. That which appears was called by Schiller the "play impulse." Toward the education of man Schiller thus offered art, while Kant had presented religion. Art refines the feelings, tempers the sensuous will, and makes room for the moral will. Yet the moral will is not the end; for art is not only the means of education, but the goal as well. Complete life comes when the conflict between morality and sense disappears in artistic feeling. "Only as man plays is he truly man." The ideal that Schiller formulated for this Romantic age was the "schöne Seele." While in the soul of man the Kantian rigoristic moral law exists when sense stands in opposition to duty, the "beautiful soul" does not know conflict because its nature is ennobled by its own inclination. This æsthetic humanism Schiller expresses for his time in antithesis to Kant's and Fichte's rigorism. Goethe impersonated this ideal in his life and represented it in his works. The Romanticists carried this conception to its extreme both in their practice and in their literary productions. Thus they came to stand for an aristocracy of culture, and in them "ethical geniality" culminated. The Romanticist contrasted himself with the "Philistine" who lives according to rules. The Romanticist would live out his own individuality as valuable in itself. He substituted the endless play of the imagination for Fichte's moral law, and was frequently very wayward and capricious. This is seen in Schlegel's *Lucinde*. Schleiermacher the preacher tried to preserve the purity of Schiller's doctrine.

In his construction of his own philosophy of mind Schelling adopted completely Schiller's theory of the æsthetic reason in what he called *Transcendental Idealism*. He looked upon the Fichtean antithesis between theoretical and practical reason as the same as that between the unconscious and the conscious activity of the Self. Theoretically, or from the point of view of the understanding, consciousness is determined by the unconscious; practically, or from the point of view of the will, the unconscious is the creation of consciousness. The practical or willing Self re-shapes the products of the nature world. For a thinking being is not merely a reflector or re-presenter of events as they occur in the nature world — as nature produces them. Thinking man is not merely passive. He re-shapes and transforms nature through the freedom of his morality.

But neither the series of passively apprehended events, nor the series of events transformed by the active moral will, is ever complete. Neither as a passive product of nature nor as a moral will is man a perfected being. In either condition man perpetually feels the contradiction, since he is neither wholly passive nor wholly active. The antagonism between will and sense is ever present. Man realizes the fullness of his Ego, when he transcends both will and sense, both morality and science, in the conscious-unconscious activity of artistic genius. This is the highest synthesis. In Schelling's lectures delivered at Jena on the philosophy of art, after he had written his *Transcendental Idealism*, he developed and applied this theory and it determined the subsequent development of æsthetics in the Jena circle. Kant had previously defined genius as intellect that works like nature; Schiller had defined it as play-

ing ; Schelling looked upon it as æsthetic reason and the climax of the philosophy of mind. Art, and not logic, is the instrument by which the reason develops. Artistic reason is the goal toward which the reason aims.

The System of Identity. Schelling published his *Transcendental Idealism* in 1800. In the next year he published his *System of Identity* in the hope of finding some common ground for his two preceding points of view. For Nature is not absolute, but is a limited objective Ego ; and Mind is also not absolute, but is also limited, although subjective. The Self perceives the object as other than itself, and in subsequent reflection it sees the object as a form of its own deeper Self. Subject and object, mind and nature, are one in reality. The question then is, Does the absolute Self exist? Yes, but outside the conditions of existence and beyond all contradictions. It is itself the highest condition, the unconditioned condition. But what is the basis of these two antithetical aspects of life ? The most suitable name that Schelling could give it was Identity or Indifference ; for other names would imply conditions. In this attempt to construct an absolute Idealism, Schelling shows the influence of Spinoza. Identity reminds us of Spinoza's substance, — a reality that is absolutely indifferent to both mental and nature phenomena, and yet is the reality of both. It is absolute reason undetermined in its content. It was this turning to Spinozism on the part of Schelling, that made Hegel break with him and call his Identity "the night, in which all cows are black." Schelling even came so much under the influence of Spinoza as to imitate Spinoza's form of presentation in the Ethics. But Schelling regarded the objective and subjective worlds not after the manner of

Spinoza as independent of each other. On the contrary he looked upon every phenomenon as both ideal and real, and as having its logical place according to the degree in which the two elements are combined. Differences are what constitute phenomena; the Absolute is the Indifferent. Schelling illustrates this by the magnet, which is itself an indifference of opposite poles of varying intensity.

In the nature series the objective factor predominates, and in the mental series the subjective factor. The universe is the most perfect work of art, the most perfect organism, and the best expression of God.

Schelling's Religious Philosophy. Romanticism took a religious turn at the beginning of the eighteenth century under the influence of Schleiermacher.¹ The motive of this movement was the thought that religious feeling lies below art. Reason can be completed only in religion, by which is meant not dogma, nor morality, but an æsthetic relation to the world-ground, a pious feeling of absolute dependence. It is the feeling of being permeated by the Absolute. Schleiermacher taught in the true Romantic spirit that religion is an individual matter and is different from church organization. Thus in this time of quickly passing shades of imaginative thought Schiller idealized Greece and Schleiermacher the Middle Ages. Susceptible as he was to every idea of his time, Schelling embodied this teaching of Schleiermacher in his later teaching. With the other Romanticists he expected that the concept of re-

¹ F. E. D. Schleiermacher, b. 1768; educated in the Herrnhuten institutions and at the University of Halle; in 1796 preacher at the Berlin Charité; in 1802 court preacher at Stolpe; in 1804 professor extraordinary at Halle; in 1809 preacher at a church in Berlin; in 1810 professor in Berlin University.

ligion would furnish a final basis for the solution of all problems, overcome all antitheses in an inner harmony, and bring about the eternal welfare of all.

Schelling now no longer called the Absolute Indifference, but God or Infinity, and he conceived Him as possessing modes and potencies. In the development of this new line of thought he introduced the neo-Platonic doctrine of Ideas as God's intuitions of Himself, and as intermediaries with the world. Later Schelling passed through another change, and this doctrine grew under his hands into a theosophy and a theory of the irrational. The influence of Schelling was eclipsed by Hegel after Schelling retired to Munich; and Schelling saw his rival in control of German academic thought for many years. But he had the satisfaction in his old age of being called by the authorities to Berlin as the official spokesman against the Hegelian doctrine.

Hegel and the Culmination of Idealism. We have divided the philosophers after Kant into two groups; (1) Fichte, Schelling and the Romanticists, and Hegel; (2) Herbart and Schopenhauer. In this first group, which we have at present under our eye, Fichte is the ethical exhorter, Schelling the Romantic nature-lover, and Hegel the intellectual systematizer. Fichte's conception of Reality is always an ethical ideal unrealized, in whose cause men are called to fight for conviction's sake. Schelling points to the beauty of nature's productivity as a reality that lies hidden in mystery. Both these theories show profound insight into life and both are expressive of the period in its attitude toward life. Fichte is the type of the Puritan idealist; Schelling the type of the sentimentalist. Yet both, even from the point of view of the Idealism of the period, were par-

tial expressions. Idealism was a social movement; and like all social movements must run its course. It would not stop until it had culminated in a full and systematic formulation. This was found in the philosophy of Hegel. The social forces of the eighteenth century had been gathering a momentum, which naturally came to a magnificent climax. On its political side this movement culminated under the leadership of the greatest of all political idealists, Napoleon Bonaparte, in 1815 at Waterloo. On its intellectual side it reached its completion in the philosophical system of Hegel. Hegel died in 1831, and his intellectual kingdom, like the political kingdom of Napoleon, was immediately shattered. But the observer of the currents of history will find much significance in the stubborn persistence of the intellectual phase of the Idealistic movement long after its political dominance had gone. Hegel ruled the intellectual world of Germany from Berlin for sixteen years after the battle of Waterloo, and his philosophy was officially recognized by the Berlin authorities. This stubbornness of the realm of ideas can be exemplified throughout history, for it requires more than one political earthquake to demolish a well-organized intellectual theory.

Hegel may be said to have drawn the scattered threads of the preceding idealists into a system. Like them, he firmly grounded his philosophy on the Kantian epistemology. Like them also, he sought to find absolute reality by means of the conscious Ego. This only means that all three were idealists. But Fichte's conception of the Ego was only partially formed. It could not be an absolute reality, since it needed to be confronted by a non-Ego in order to assert itself and

live. Hegel was discerning enough to see that Reason was more fundamental than either action, purpose, or consciousness itself. To him both the Ego and the non-Ego were in essence Reason. The Ego could not know that it had created the non-Ego unless the Ego was in the beginning rational. To distinguish the Ego from the non-Ego, there must be some ground of similarity upon which both are based. In his search for this ground Hegel at first allied himself with Schelling. The brilliancy of Schelling's thought dazzled him. Then he saw that Schelling only led back to the abstract universal of Spinoza. A mystical "black night" Identity was not actual nor did it explain anything actual. It merely said that the Absolutely Real is unknowable. This is too easy a solution of the complexity of life. Having neither meaning nor actuality, it cannot explain the actual concrete and meaningful things. The Absolutely Real must be a universal, but it must also be concrete. History has been the Reason in its toil and travail. The Absolutely Real must include history and it must be Reason. With Fichte the "deed act" had primacy, with Schelling the æsthetic feeling, with Hegel the Reason as an articulated series of concepts.

Why Hegel remains to-day the Representative of Kant. There were several reasons why Hegel remains the representative of Kant : —

1. He had more learning and ability than the other post-Kantians.

2. His own interpretation was an interpretation of facts. By the other post-Kantians things are not represented as they are, but as they have been transformed. Hegel, however, was a respecter of things as they are. Hegel was possessed of no sentiment. He was a satirist ;

although a romanticist, he was an encyclopædic historian as well. He was a philosopher in that old-time sense of wishing to know the nature of things.

3. He was fortunate in his application of Kant's doctrine to evolution. It proved to be the beginning of the movement which appeared later in Darwin. People were going to be evolutionists in the nineteenth century, and Hegel played into their hands and helped evolution.

4. Hegel gave to his philosophy the air of orthodoxy. In the nineteenth century there was a desire for Christianity that was orthodox. Hegel offered no objection to allowing that interpretation to be placed upon his philosophy.

The Life and Writings of Hegel (1770-1831).* The slow movement of Hegel's diction is paralleled by his gradual development in thought. He was the most painstaking metaphysician that ever completed a philosophy. While he was lacking in the painful hesitation that made Kant consume so much time in introductions as to have little for the body of his discourses and none for the completion of his philosophy, he was nevertheless a plodding, careful, and prosaic thinker. As a boy he showed these traits without showing any predominant taste or capacity. "He was that uninteresting character — the good boy who takes prizes in every class, including the prize for good conduct." As a man he was shrewd and reserved, overbearing to his inferiors and opponents, and even patronizing to his superiors. He was the type of the pedantic teacher who brooks no

* Read Royce, *Spirit of Modern Phil.*, chap. vii; James, *Hibbert Journal*, 1908-09, pp. 63 ff.; Eucken, *Problem of Human Life*, pp. 494-507; Rand, *Modern Classical Philosophers*, pp. 569-574, 583-592, 614-628.

opposition. Like Kant's, his life was entirely academic, but unlike Kant's, his experience was in many university circles — Tübingen, Jena, Heidelberg, and Berlin. His thirteen years at Berlin were remarkable, not only for his philosophical dominance, but for his influence in society and court. The official recognition of his philosophy by the Berlin authorities was a detriment in the end; for immediately after his death, in 1831, it lost its influence. Hegel had succeeded Fichte at Berlin, and by the irony of fate, Schelling, already an old man in Vienna, was called by the Berlin authorities to combat Hegel's influence. Hegel's followers, after his death, became engaged in angry disputes over their interpretations of their master's philosophy. His philosophy was attacked by Herbart. The intellectual world turned away from him to empirical discoveries and the doctrine of evolution. In twenty years Hegel's influence was insignificant, and to-day his name is scarcely mentioned in the lecture room of a German university. His influence is, however, growing and powerful in England and the United States. Still it must be said that even in Germany no one has so dominated the direction of jurisprudence, sociology, theology, æsthetics, and history (a science which Hegel himself created). Hegel's erudition, his ability to systematize, his power of discrimination, are sufficient to explain such influence. The illumination that his philosophy gives, lies less in his metaphysical theory than in his application of it to history and tradition. He won adherents, not by his abstruse arguments that so few can understand, but by illustration; not by his demonstration of the Absolute, but by showing how that Absolute is what the religious devotee seeks, what the moralist presupposes and the

historian recognizes. In carrying out his theory in detail he arbitrarily fitted his facts to his theory, especially in the philosophy of nature, the history of philosophy, and history. In the realm of pure thought, where conceptual facts are dealt with, this is not so apparent. He was successful, for example, in the science of æsthetics.

Hegel's literary style is difficult, and his technicalities are almost barbarous. He uses philosophical and common terms with meanings to suit himself. He loves paradoxical phrases, and is pedantic in his insistence on systematic arrangement.

1. *Formative Period* (1770–1796). Hegel was born at Stuttgart in 1770, and in the years between 1788 and 1793 he studied philosophy, theology, and the classics in the University of Tübingen. Among his companions there were Schelling and Hölderlin. From 1793 to 1796 he was a tutor in Switzerland, where he made a further study of Kant.

2. *Formulation of his Philosophy* (1796–1806). Hegel formulated his philosophy for the first time in the four years (1796–1800) of his life at Frankfort, where he was acting in the capacity of tutor. In 1801 he became privat-docent at Jena through Schelling's recommendation. He edited a philosophical journal with Schelling, and the two were friends so long as Hegel found Schelling's assistance of value to himself. When, in 1803, Schelling left Jena, Hegel began to criticize his former friend's philosophy. Hegel was appointed professor of philosophy at Jena in 1805.

3. *Development of his Philosophy* (1806–1831). 1806. He wrote the *Phänomenologie*, which was published in 1807.

1807. The university was discontinued after the battle of Jena, and Hegel went to Bamberg to edit a newspaper.

1807–1815. Hegel was at Nuremberg as teacher in its gymnasium, and in 1811, at the age of forty-one, he married.

1812–1813. He published his *Logic*.

1816–1817. He was professor of philosophy at Heidelberg. He published his *Encyclopædia*, which consists of three parts: *Logic*, *Philosophy of Nature*, and *Philosophy of Mind*. This was enlarged in 1827.

1818. Hegel succeeded Fichte at Berlin, where he met with marked success, and where he exercised a very wide influence. When Hegel came to Berlin his philosophical theory was already formulated, and his thirteen years at Berlin were spent in illustrating and verifying it in history.

1831. At the height of his fame, he died of cholera.

Realism, Mysticism, and Idealism. It will not be amiss at this point to contrast three of the great types of human thought, — Realism and Mysticism with the Idealism of which Hegel was the consummate expression. The Idealistic Period of European thought is confined within the forty-one years between 1790 and 1831. Moreover it is a world-wide movement, the philosophical expression of which is restricted to the German people. Mysticism and Realism represent the civilizations of longer periods and of many peoples. Mysticism is, for example, the attitude of mind frequently found in the Middle Ages in Europe, and may be roughly said to be the philosophy of the Oriental peoples. Spinoza was a belated mystic and its best European exponent; and against the revival of Spinoza's Mysticism during this

period Hegel as an idealist took his stand. Realism has been a popular philosophy in all civilizations at all times, and it was the irony of fate that Realism followed directly upon Hegel's long period of dominance as an idealist. Modern science is based on Realism, and so, on the whole, was Greek civilization. In contrast to Realism, Idealism represents a few years of history and has been confined to a limited civilization, yet for profundity of insight into the meaning of life Idealism is the consummation of human reflection.

Since "philosophy lends itself to extended discourse," it is quite impossible to contrast these theories briefly in more than a crude way. From the mystic's point of view, absolute reality is that which can be immediately apprehended. However, since immediate intuition is always undetermined, the mystic's reality is a very vague and abstract thing, although for him it is none the less real. Such a reality is not usually sought in the "world of nature"; for nature objects are very definite, besides being very transitory. The mystic's world of reality is within; therefore God to the mystic is to be found within the soul and is to be contrasted with the unreality of the world of sense. There is only one reality, and that is within the soul; all else is an illusion. Reality is gained by direct knowledge and never by the process of logical reflection. Mysticism is frequently allied with æsthetics; the love of God is apparently the same as the love for a work of art; the immediate intuition that the soul has of God apparently is the same psychological process as the artistic ecstasy over a thing of beauty. Both result in the absorption of the soul in its object, and in the presence of either all else seems illusory. Now Realism is a theory that is more easily defined

than Mysticism. It is simply the conception of many realities independent of one another and of the thinking mind. Reality is not one, it is a plurality of independent things, all of which are independent of the thinking process. Such realities are not undefined. As in Idealism, our knowledge of them is a definite matter of reflection; but against Mysticism, such definite knowledge is proof of their reality.

This can be illustrated by the series $1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{8} \dots 2$. Let the number "2" represent the reality or meaning of the infinite series, which, however far extended, never reaches "2." Let the series itself represent the definite processes of phenomenal nature. The Realist would say that only the increasing series is real, and the "2" is an unknowable. The Realist admits that the series is fragmentary and incomplete, but it is quite definite and certainly the best we can do. It is at least exact and scientific; and the goal of scientific knowledge belongs to the realm of the attainable. On the other hand the Mystic maintains that, since exact knowledge attains only the changing and phenomenal, exact knowledge is illusory. When we cannot attain the real by effort and sense knowledge, why waste our time in seeking to do so? Reality is right at hand — in one's self. To the Mystic the infinite series of fractions is unreal, because it is and always will be incomplete. The ideal "2" can be got by direct and intuitive knowledge. Thus to the Realist the infinite series is real and the goal "2" is unreal, while to the Mystic the "2" is real and the fractions of experience are unreal.

Hegel felt profoundly convinced that neither Realism with its definite realities nor Mysticism with its undefined goal was an adequate explanation of the world and

life. The truly real must not only be definite, but it must also be all-inclusive. It must not on the one hand be incomplete, nor on the other must it be vague. It must be both the number "2" and the infinite series leading to "2." A truly and absolutely real must be the explanation of everything that happens, — joy, evil, necessity in nature, every least event and change. In the light of the idealism of Hegel the solutions of the Mystic and the Realist seem to fade in importance, and the problem of life seems to grow in significance and meaning.

The Fundamental Principles of Hegel's Idealism. In contrast with Mysticism and Realism, as well as with the doctrine of Fichte and Schelling, Hegel tried to formulate a conception of the universe that would include everything and yet be an organic whole. In what terms can this world of richness and variety, of coördinations and contradictions, be conceived as a single whole? How can it be one and still be many? Hegel saw clearly that this was his problem. The truly absolute must be a unity, and still be absolute.

There are two fundamental principles upon which his doctrine rests: (1) *The world must be conceived in terms of consciousness.* To any one who has studied the principles of psychology, or who has followed Kant's epistemological analysis, it is clear that the only real unities are conscious unities. The characteristic of consciousness is synthesis. This is what we mean by consciousness, and consciousness is unique in this. (2) *The world as a conscious whole must be essentially a world of contradictions.* We must accept contradiction and not consistency as the fundamental and explanatory principle of life. In science and our ordinary human

problems we try to get results that are logically consistent. This is useful, but in doing so we do not get a full explanation. We omit in such calculations life's negations and incongruities. But do not inconsistencies and negations and incongruities exist? They certainly do; everything has its opposite; and if we will take the pains to observe the processes of thought, we shall find that thought is fundamentally inconsistent. Why do we usually regard thought as a self-consistent process? Because our methods of formal logic are such. In formal logic we reason smoothly and consistently from the premises to the conclusion. If we look more deeply into thought, we shall find that such consistency is made possible by ignoring the inconsistencies necessary to the very being of thought. The question therefore is not, Can the cosmic whole be conceived as consistent? but *What is the law of its inconsistencies?*

Let us consider these two principles of the Hegelian philosophy more in detail.

The Cosmic Unity. Hegel insists on the old truth that thought is self-operating within us. Thought belongs to our nature, yet it controls our nature. Thought develops consequences without regard to the will and demands that contradictions shall be solved. It is not correct to say that we think, but rather that thinking goes on within us. Thought is the life of the world. Thought is a process which embraces all things and projects them. Hegel emancipates thought from all the limitations of human minds. He would make thought objective and transform reality into thought.

Thus Hegel conceives that this self-operating thought within us is essentially the reality of the universe. Thought is the great cosmic undercurrent that includes

all things in its sweep. Indeed, the universe cannot be conceived as a unity unless the universe is conceived as a cosmic consciousness or reason. The true study of the nature of the world is cosmic logic, and philosophy becomes in Hegel's hands panlogism, — universal logic. Kant restricted the categories of thought to the human understanding; Hegel universalizes them and they become categories of the cosmos. For if the reality of the world is conscious reason, the categories are not only the forms of thought, but also the modes of being. The categories are, therefore, more comprehensive than Kant supposed. To use a term from the Middle Ages, they are "substantial forms." They are at one and the same time the forms that mould thought and the stages of eternal creation. The knowing process and the cosmic process are one and the same — one writ small and the other writ large. They are not separate from each other, but are the transformations of one Being. If we would study the cosmic forms, let us study thought-forms. Logic is really ontology; the study of the genealogy of thought is the study of Being. The real is reason, and the reason is real. By reason Hegel does not mean intuition or even immediate perception, which Fichte and Schelling claimed to be the fundamental principle of the mind. The reason which Hegel is talking about is the concept or general notion. All actuality is the development of the general notion in a necessary and self-creative movement. History, matter, and thought are exhibitions of the divine Idea. "All Being is thought realized and all Becoming is a development of thought."

Hegel's philosophy is a monism of reason, — a universalized concept, in which everything has its divine place. It is an all-embracing system, moulding every depart-

ment. Mind and matter are not aspects of a reality which is behind them, but are the modes of that reality. The cosmic reason is successively mind and matter, and not the principle of mind and nature. In Schelling things proceed from the absolute. In Hegel they are the absolute. The absolute does not exceed things, but is wholly in them as their organic unity. Everything is under the conceptual labor of thought. The important thing is to refer all our complex states to the unifying cosmic concept and have one illuminating idea. Absolute reason is absolute movement — the perpetual movement of life. Yet this absolute reason — the reason that refuses to change according to our likes and dislikes — is its own law and goal. The cosmos is the law of reason and has as its end its own unfolding self-consciousness. It is not the purpose of philosophy, according to Hegel, to tell what the world should be, but to recognize its nature as rational.

We must, therefore, be careful to distinguish Hegel's conception of the unity of God from that other conception of Him as a quantitative, single, and isolated unity. An isolated and single Being would imply the existence of other isolated Beings. Such an individual would be limited by others and dependent upon them. In technical terms sameness with one's self implies difference from others. A good example of the conception of an isolated God can be found in modern theology ; such a God is a unity, but He is only the greatest of the several powers in the universe. Such an One is not an absolute, for the One to be absolute must be all that there is. Limitation implies something else. *Das Wahre ist das Ganze.*

But Hegel does not mean by the Oneness of God an

aggregation of parts, nor does he mean a system or arrangement of parts. An aggregation of parts, however big, is never complete and cannot include all that there is. An aggregation, even if it includes the past and the present, is not Absolute. The temporal series points to something else to give it meaning; and yet Reality must not stand outside any part of the temporal series. The Absolute Reality must include the temporal series, and yet the temporal series is not in itself Reality. Neither does Hegel mean that Reality is a system or society of individuals, whose knowledge and will imply one another; for such an organization of individuals also has its meaning in something below it.

The Absolute Reality is a spiritual individual. It is a unifying consciousness, which is self-moving, subjective, and active. "It is the Idea that thinks itself and is completely self-identical in its otherness." It cannot be abstract thought like Spinoza's God, for the Absolute must be actual. Nor does Hegel mean by Reality merely life or vitality, as Haeckel has conceived it in modern times; for these, too, are only abstract terms. "It is pure personality which alone through the absolute dialectic encloses all within itself." Reality is an Absolute Cosmic Spirit engaged in its self-discovery and self-appropriation by means of its own movement; and this movement is revealed in art, religion, and philosophy. The Absolute is, as Shelley makes the Earth picture man in *Prometheus Unbound*,

"One harmonious Soul of many a soul,
Whose nature is its own divine control,
Where all things flow to all, as rivers to the sea."

The panorama of *history* is the progressive knowledge of the Absolute appearing under successively more

adequate forms. *Morality* is the Absolute in ever enlarging social relations. *Religion* is the Absolute in personal relations to man. *Philosophy* is the Absolute in reasoned apprehension of himself. The Absolute is not to be conceived in anthropomorphic terms, but is the world-process realized as an individual self-consciousness. It is cosmic consciousness become more significant. It is Being regarded as an individuality and including all development.

The Cosmic Law. If the cosmic unity is a cosmic synthetic consciousness, it must be subject to the law of reason which is fundamental in consciousness. The process of consciousness is an unfolding. It is an evolution, but an evolution that is an unfolding. Ordinarily biological evolution restricts itself to the particular type under consideration. It does not take account of the fact that the growth of one type means the destruction of another. It does not view nature in a universal way and consider construction and destruction, action and reaction, equal. It looks upon development as a process along a tangent or like the infinite series of numbers. But the destructions, the defeats, the reciprocal retrogressions, must be accounted for in a truly Absolute consciousness. Evolution is not therefore an upward advance, but a closed circle. The Absolute is not therefore a consistency, but includes contradictions; and evolution cannot truly be interpreted in quantitative but in qualitative terms, as the unfolding of consciousness. The only way to include everything in the Absolute is to think of the Absolute as coming to a consciousness of itself. The Absolute Reality is the same at any temporal beginning or ending. Its meaning is becoming clearer to itself alone. Such clearness appears in the clearness with which the

categories which are the forms of any consciousness become related. The task of philosophy is not to understand these forms together or *seriatim*, but as moments of a unitary development. They are the links in the development of Spirit, God, the Idea, or the Absolute.

What is this law of spiritual circular development? What are the categories of the cosmic Ego? How can the cosmic organism take account of the contradictions as well as the consistencies of life? The three necessary categories or three fundamental conceptions of the cosmic consciousness are "to be," "to be denied," "to be transcended," — Thesis, its Antithesis, and the Synthesis of the two. In other words they are Assertion, Contradiction, and Return-to-itself. The cosmic law is the Law of Negativity. It is a dialectic process in the union of contradictories, of extremes meeting, of the equality of action and reaction. In Hegel's hands contradiction becomes the very principle of cosmic harmony. It is the struggle of thought to comprehend itself by using its own contradictory and created experiences for such comprehension. "The phenomenon is the arising and passing away which itself does not pass away, but exists in itself. It constitutes the movement and reality of the life of truth." The law of human consciousness is this: Assume the truth of any doctrine. Examine it and you will find it in some detail asserting not only its own contradiction or opposite, but also the relation between its assertion and its contradiction. The truth lies in the assertion that transcends the two opposites. The law of the cosmic consciousness is the same. Any stage of history appears in the conscious assurance of the truth of the principles upon which history is founded. But any such assertion by any epoch arouses opposition; and the

next stage in historical development is the assertion of principles that synthesize the assertion of the previous epoch and the opposition to it. The law of consciousness drives history to oppose its own self-assertions and then to a deeper apprehension of itself in a higher assertion, until it finds rest in the knowledge of the Absolute Idea — *that Absolute Truth is continuous contradiction*. Perhaps Hegel's most notable contribution to modern thought was his emphasis upon the tremendous power of negation and the stimulating force in contradiction. Spiritual advance is made through opposition.

Hegel's Application of his Theory. Formulating his theory in 1800, Hegel spent the most of his literary career in exemplifying it. The *Phänomenologie* (1807) is an attempt to show the natural history of thought in experience. He shows there the series of stages through which the mind passes, — stages corresponding to logic, to the growth of the individual, and to society. In the dialectic movement, consciousness views the world in an external way until it becomes self-conscious; then reason is evolved as a synthesis of the two: *i.e.* of external consciousness and self-consciousness. Reason then develops by continually turning back upon itself into an ethical, religious, and, lastly, an absolute reason. Hegel wrote his *Logic* (1812) as an application of his theory to thought — regarding thought as consisting of general concepts. Then came his *Encyclopædia* (1816), containing his *Philosophy of Nature* and *Philosophy of Mind*. In his *Philosophy of Nature*, nature is regarded as revealing the same dialectic as logic, but in the external world. Nature, therefore, stands to logic as its antithesis. The *Philosophy of Mind* places mind as the synthesis of logic and nature, and elaborates the

subject as mind, objective mind, and the synthesis of the two, or Absolute mind. Thus the dialectic of the *Logic* is repeated and applied to the *Philosophy of Nature* and the *Philosophy of Spirit*. Logic and history are therefore parallel. The content is always the same in both ; and the development is always in logical forms. The Absolute Idea by differentiation with itself comes to itself: (1) in Logic through Being, Essence, and Idea ; (2) in Nature through matter, individual forms, and organism ; (3) in Spirit through consciousness, self-consciousness, reason, right, morality, social morality, art, religion, philosophy. Logic is the Spirit *an-sich* ; nature is the spirit *für-sich* ; mind is the Spirit *an-und-für-sich*.

CHAPTER XII

THE PHILOSOPHY OF THE THING-IN-ITSELF

Herbart and Schopenhauer. The main line of development of the critical Kantian movement was the idealism of Fichte, Schelling, and Hegel. It was the most perfect expression of the period of German philosophy. There were, however, so many distinct elements in the Kantian doctrine, and these were so loosely tied together by Kant, that one is not surprised to find many divergent lines of its subsequent elaboration. It is difficult to classify all these later philosophers. But most prominent in this group stood Herbart and Schopenhauer. Herbart was a Realist, and Schopenhauer a voluntarist and pessimist. They had a common ground and motive for their respective philosophies, and may be placed together in the second group of the disciples of Kant. They were allied (1) in their emphasis upon the importance of the thing-in-itself and (2) in their strong opposition to the idealist movement. While both published their principal writings before the death of Hegel in 1831, both lived to the middle of the nineteenth century and both represent the reaction against the period of idealism. They speak more for the subsequent nineteenth century than for German ideals and Romanticism. They represented a certain feeling of the time that Kant's doctrine had not received its due at the hands of the Idealists.

Some philosophers had remained true to Kant, but they could not get the public ear until they were reinforced by the positive science and historical criticism of the second quarter of the nineteenth century. Bands of

men had gathered to study Kant even while Idealism was dominant. These were not professional philosophers, but politicians and others engaged in active service. Kant himself in his later years protested against his "false disciples." Fries and Herbart, even though pupils of Fichte, were true to Kant; and turned attention away from idealistic construction to an examination of the psychological foundations upon which the Kantian criticism rested. Herbart was the most prominent of the empirical psychologists and physicists who turned away from the speculative tendency back to Kant. Schopenhauer was the early spokesman for that mysticism and pessimism which characterized the nineteenth century and appeared in the music of Wagner, the literature of Ibsen, and the philosophy of Von Hartmann and Nietzsche.

What discredited Hegelianism in particular and philosophy in general in the eyes of the nineteenth century was (1) the errors of Hegelianism as to facts; (2) the patronizing tone of the Hegelians toward scientists like Copernicus, Newton, and Lavoisier; and (3) the refusal of the Hegelians to test hypotheses by facts. The opposition against Hegel was against his principles, his method, and his conclusions. At the downfall of Napoleon the age gave up the hope of reconstructing the world either politically or philosophically. The new spirit was scientific and positive. It tried to accept the world as it found it, and to explain it mechanically so far as it could be done. Things are not the creation of thought, and thought cannot change the reality of things. We must observe and experiment, since we cannot construct. We must restore the boundaries of Kant. Yet both Herbart and Schopenhauer were true to the spirit that

inspired German idealism, for they could not develop their philosophy of education, psychology, or art except upon a metaphysical background. Metaphysics was necessary. It was as necessary a foundation to the Germans as ethics to the Greeks and psychology to the English.

Johann Friedrich Herbart.* As "a Kantian of the year 1828" Herbart claimed to have carried the Kantian doctrine a step further by disclosing its psychological grounds. He insisted that analysis was the only true method; and he contended against Fichte that it is impossible to deduce the theory of the world from a single principle. An all-inclusive principle may be the conclusion, but not the premise, of a philosophy. Thus his thought moved in exactly the opposite direction from the monism of the Idealists and Schleiermacher, with which he was in constant hostility. Experience proved to Herbart the existence of independent realities; and he could not reconcile himself with the *a priori* doctrine of the idealists, which begins by denying the existence of the Thing-in-Itself. On the contrary, philosophy to Herbart had the Thing-in-Itself as its chief concern. Herbart did not see how paradoxical his position must be—how futile must be the results of attempting to know the unknowable. He was impressed with the depth of the problem of existence, and he felt that, if it was to be explained at all, it must be along scientific lines, especially in the fields of psychology and education. The scientific method of Herbart was mechanics; his Realism was the result of his method.

Herbart's programme at the beginning of his teach-

* Read Ribot, *German Psychology of To-day*, pp. 24-67; Weber, *History of Philosophy*, pp. 536-543; Dewing, *Introduction to Modern Philosophy*, pp. 230-235.

ing at Göttingen in 1802 was as follows: He defined philosophy in a general way by simplifying the concepts that underlie the different sciences. Thus he (1) reconstructed Realism, (2) restored the principle of contradiction, and (3) established philosophy on the same basis as science. Of all the philosophical schools in the nineteenth century the Herbartian school was the most numerous and compact. Hegel's attitude had driven many thinkers into science, and the majority of them attached themselves to Herbart for want of something better.

The Life and Writings of Herbart (1776-1841). Herbart was the typical scholar. He was a man of quiet and conservative tastes, and his life was never disturbed by dramatic situations arising out of contradictions in his character or environment. His days were spent in study, lecturing, and efforts for social education. The philosophical influences upon his thought were Leibnitz, Kant, and negatively the Idealists. In his early life he had read Leibnitz and Kant, and before he was eighteen he had read enough of Fichte to be repelled by his doctrine. In 1796 he was a student at Jena. From Jena he went as tutor to Switzerland, where he met Pestalozzi and laid the foundation of his own philosophy. In 1802 he was called to Göttingen, where he became full professor in 1805. In 1806 he published *Principal Points in Metaphysics*. In 1809 he was called to Königsberg, where he published his chief works:—

1813 *Text-book of the Introduction to Philosophy*.
 1816 *Text-book of Psychology*.
 1822 *Possibility and Necessity of Applying Mathematics to Psychology*.
 1824-1825 *Psychology as a Science*.
 1828-1829 *General Metaphysics*.

In 1830 he was called back to Göttingen, and he died in 1841.

The Contradictions of Experience. All the conceptions of practical life are self-contradictory and are therefore vicious. This applies not only to the conceptions of unreflecting minds, but also to those of scientists and philosophers. To philosophize is nothing else than this: to free our conceptions of their self-contradictions by simplifying and revising them. We think of the world as consisting of things, persons, relations, and laws; but such a view of the world is founded upon the fallacy of thinking an object at the same time as one and as many. This general fallacy takes four specific forms: inherence, change, continuity, and selfhood. For example, it is contradictory to think of a plant as one thing in which many qualities inhere; it is contradictory to think of a plant as the same when it passes through many changes; it is contradictory to think of space as continuous and yet divided into parts; and it is contradictory to think of the self as always the same and yet as a stream of conscious states.¹

The Argument for Realism. This inherent contradiction in human conceptions had been a matter of observation by philosophers for many centuries, but it had led to many divergent conclusions. The Greek Skeptics had long ago observed it, and had concluded therefore that there is no such thing as reality. To them thought is discredited because the contradictions of thought are insoluble. Truth does not exist. On the other hand Hegel developed his great dialectic system upon the basis of these contradictions. Is thought self-

¹ A discussion of these contradictions can be found in any text-book in metaphysics.

contradictory? Yes. But is thought discredited because it is self-contradictory? By no means. It is the nature of thought to be self-contradictory, and the highest truth is the knowledge of this. So Hegel, instead of rejecting the conception of reality because thought is contradictory, incorporated contradictions into his conception of the Being of the universe. Indeed, he made contradictions the "head of the corner" of his system. Contradiction to Hegel is cosmic law. However, in such a conception Hegel had to give up entirely the principle upon which formal logic was founded. This was the principle that a thing cannot be different from itself. To Hegel the highest truth was exactly the opposite — everything is self-contradictory.

While Herbart agreed with the Skeptics and with Hegel that experience is self-contradictory, he differed from them in the inference which he drew from such contradictions. In acknowledging the contradictions of experience Herbart did not find himself driven to either one of these alternatives. Philosophy did not mean for him skepticism. On the other hand he was repelled by the turn that Hegel had given to logic, and he refused to accept reasoning as a self-contradictory process. He returned to the demands of formal logic and restored the principle of contradiction¹ to the place which it had occupied during the Enlightenment. Herbart took as his *fundamental philosophical principle that experiences are not actual when they are self-contradictory*.

The self-contradictoriness of experiences shows that they are phenomena and not actualities. It also shows

¹ The "principle of contradiction" in logic is the prohibition to commit contradiction.

that they have reality as their ground. Seeming things imply realities as the ground of their qualities; seeming occurrences imply actual relations between the reals. Seeming is just so much an indication of Being. Consistency lies behind phenomena. The existence of appearances must be admitted, but appearances are appearances of something. If nothing existed, nothing would appear to exist; and yet things are not in reality what they appear to be.

Herbart agreed with Kant that we can experience only phenomena. There is also a similarity in the two theories as to the relationship between phenomena and the thing-in-itself. The similarity is, however, only superficial. Kant reasoned from the relativity of phenomena to the synthetic unity of apperception, *i. e.* to consciousness in general, while the thing-itself was to Kant an unknowable and irreducible remainder. To Kant phenomena pointed to consciousness rather than to things-in-themselves. On the other hand, Herbart reasoned from phenomena to the existence of things-in-themselves. Phenomena point to an independent, objective reality rather than to a thinking subject. While in Kant's doctrine phenomena depend for their existence upon the creative power of consciousness, to Herbart consciousness has no creative power, but itself depends on the existence and independence of a plurality of independent Reals. Even the categories and the forms of space and time are not innate synthetic forms. All are the result of the relationships among independent Reals, which are the spring of all activity and existence. Herbart thus gave to the things-in-themselves all the independent functions that Kant attributed to consciousness.

The Many Reals and Nature Phenomena. We must remove the contradictions of experience, if we would get at a true conception of Reality and the meaning of phenomena. The true way is (1) to posit a plural number of Reals, and (2) to interpret the phenomena as derived from the relation among these Reals.

In the first place, a multiplicity of Reals, and not a single Real, is needed to explain the multiplicity of phenomena. Herbart's doctrine is therefore a pluralism. He conceives the many Reals to exist, not in phenomenal, but in "intellectual space." They are not subject to any phenomenal limitations whatsoever; they may occupy one point of space at the same time. Their nature cannot be known, but we can say that they have "absolute position." They cannot be limited nor negated, and even their plurality does not mean that they limit one another.

In the second place, Herbart assumes a multiplicity of relations. Why do the Reals appear as phenomena? Why should the Reals appear to be the qualities that inhere in things, the continuities of things, and the changes of things? Herbart is not altogether satisfactory in his explanation of this problem. It is the problem of the unity of the manifold, which Kant could explain as due to the synthetic power of consciousness; but such an explanation was precluded from Herbart's Realism. Herbart speaks of two kinds of relations. There are the actual relations among the Reals. Although the Reals are conceived by Herbart as simple and unchangeable, he also thinks of them as "coming and going in intelligible space." We can never know what the nature of these actual relations is. The actual relations between two Reals are

not essential to either Real, nor can such relations have their basis in the Reals. All that we can know are the *seeming* relations among things. These are the relations of phenomenal space — of inherence, continuity, and change. Herbart calls these phenomenal relations “contingent views” (*zufällige Ansichten*), and looks upon them as having a semi-existence. That is to say, Herbart regards the world of experience as a world of relations which are not the actual relations among Realities, but merely the phenomenal relations, or relations as they appear to us.

The Soul and Mental Phenomena. Each Real has one single function, viz., self-preservation; and inasmuch as the Reals “co-exist,” they mutually disturb each other. The disturbances take the form of inner reactions on the part of the Real in its effort at self-preservation. Prominent among the Reals is the Soul-real. Like all the other Reals, it is unknowable. We have, however, immediate knowledge of its manifestations in its self-preservation among the other Reals. Psychology is the science of the relations which the Soul-real bears to other Reals. From the conflict of the Soul with other Reals, mental phenomena take their rise. Consciousness is, therefore, not the same as the Soul; it is the sum-total of the acts of the Soul in self-preservation. Consciousness is the aggregate mental states, and is not essential to the Soul. Nevertheless, isolated souls do not think; they have no states of consciousness. Consciousness can arise only in a community of Reals.

Our knowledge consists therefore of ideas, which are the results of the disturbance of the Soul-real by other Reals. These ideas live within the Soul, which is merely an indifference point where they are held together. The

ideas in turn disturb and inhibit one another, and the description of our mental life is a description of the reciprocal tension of ideas. The tension among the ideas modifies the intensity of each, and consciousness of an idea is proportional to its intensity. An idea is just on the threshold of consciousness when it has the lowest degree of intensity, and is still actual. When it drops below that threshold it is changed into an impulse. The primary ideas are sensations. They are not the images of things, but the primary acts of the Soul in its attempt at self-preservation. All other mental states, like memory, imagination, feeling, and will, are to be described as kinds of tension of the ideas. Feeling and will are kinds of inhibitive tension. The coming of sensations and the interplay of sensations can be reduced to a mechanical law. Therefore, according to Herbart, psychology is the "statics and mechanics of ideas," and must be treated mathematically.

Herbart's contribution to modern thought lies in his psychology. Modern thought has not accepted his metaphysics, but it has been influenced to a not inconsiderable degree by his psychology. Herbart gave the death-blow to the old "faculty psychology," and he placed psychology upon the same basis as the natural sciences. The science of psychology was not to Herbart a discussion of the nature of the soul, for that is unknowable. It is the study of the aggregate of the contents of consciousness. It is not a study of psychical faculties, but of psychical elements. This reduces psychology to an atomism, like other sciences, and thereby frees it from the influence of theology. Thus was the so-called modern psychology made possible by Herbart. Herbart's theory was also of incalculable value to modern

educational theory. The conception of the influence of environment upon mental life, the theory of the development of mental life, the natural method of "preparation, presentation, association, systematization, and application" of an educational subject, the theory of the correlation of subjects—all are founded upon his psychology. Herbart's attempt to apply mathematics to the laws of psychological phenomena was not so fortunate. At one time, during the nineteenth century, psychologists hoped much from mathematics in their science; but the hope has been practically abandoned. In recent years the demand for exactness has been met in psycho-physics, which operates with mathematics in a different way.

Arthur Schopenhauer * and his **Philosophical Relations.** Schopenhauer is grouped with Herbart because (1) both had an especial dislike for the idealistic development that the Kantian movement took; and (2) both built their theories upon interpretations of the Kantian thing-in-itself. While Herbart was a Realist, Schopenhauer was a Mystic; which only shows how theories, seemingly very different, can have the same source. Herbart's Realism was an interpretation of Kant's thing-in-itself as many realities; while Schopenhauer's Mysticism was an interpretation of it as one reality. In both theories the consciousness, and with it the reason, were conceived as derivations of the thing-in-itself.

The best approach to Schopenhauer's doctrine can perhaps be made by contrasting it with his pet aversion—the doctrine of Hegel. Schopenhauer was to Idealism what Mephistopheles was to Faust—he turned

* Read Eucken, *Problem of Human Life*, pp. 510–518; Rand, *Modern Classical Philosophers*, pp. 629–671.

Romanticism into pessimism. The theory of empirical evolution, which was to be highly developed in the nineteenth century, lay in theoretical germ in the teaching of the immediate followers of Kant. To Hegel the historical development of the cosmos is the struggle of reason, which with all its essential contradictions is futilely striving to come to itself. To Schopenhauer the history of the cosmos is also an endless struggle, although a struggle in which all reason is absent. Hegel could conceive the history of the cosmos as a development worthy of investigation. Schopenhauer, on the contrary, took no interest in history, because to him it could not be a development. To Hegel, phenomena form an intimate part of the cosmic struggle, since they are the content of the cosmic-reason; to Schopenhauer, phenomena are the surface illusions of an ebullient, unreasoning Will.

As the first theoretical pessimist of Europe, Schopenhauer expressed for the nineteenth century one of its most essential characteristics. He got scant recognition during his lifetime on account of the vogue of Hegel; but to-day it is Schopenhauer, rather than Hegel, who has a popular influence, and is widely read. This is partly on account of his masterly literary style and partly by reason of the content of his doctrine. The nineteenth century was carried along upon a strong current of pessimism because of (1) industrial problems, which involved many ethical considerations, and because of (2) its breaking away from traditional religious ties. So long as the unbounded optimism of Idealism prevailed, the world had little room for Schopenhauer's teaching; but when Realism with its limitations took hold of the nineteenth century, then did Schopenhauer's

day of recognition come. The popular mind has found in Schopenhauer its best philosophical expression, and representatives of his teaching have been numerous. Among them are Richard Wagner (1813-1883) with his music dramas; Von Hartmann (b. 1842) with his theory of the unconscious; Nietzsche (1844-1900) with his extreme statement of egoism — that in view of universal evil, the only hope is in the survival of the strongest and in the virtue of selfishness.

The Life and Writings of Schopenhauer (1788-1860). Schopenhauer was the kind of genius who is always an alien to the world of men. He lived a long, lonely, isolated life, in which his inherited emotional and brooding nature became more and more cynical and pessimistic. Even in his paternal home he found himself a stranger. His father pushed him into mercantile business, which he hated; and after the death of his father his brilliant mother told him that he was welcome to her Weimar home only as a visitor. The doors of all academic circles were closed to him; and he, in commenting on it, said that he had failed to get an academic hearing, because the German did not believe in a metaphysics which was so expressed as to be understood. But the cause of his isolation lay mainly in himself. He was neurasthenic and peculiar — the subject of ill-temper, night-terrors, causeless depressions and dreads. With the genealogy of Schopenhauer's family on his father's side before us, who could wonder? — the grandmother insane, one uncle insane, one uncle idiotic, one neurotic, and his father a suicide. Schopenhauer's own peculiarities were not pathological. He had a genius that blossomed as early in his years as Hegel's blossomed late. He wrote his two important works before he was thirty.

1. *Period of Education* (1788–1813). The parents of Schopenhauer were wealthy, and in 1803 he traveled with them in England, France, and Holland. In 1804 he entered business, which he gave up the next year on the death of his father. In 1809 he was busy studying the classics, philosophy, and Hindu learning in Weimar, Göttingen, and Berlin.

2. *Period of Literary Production* (1813–1831). In 1813 he wrote the *Four-fold Root of the Principle of Sufficient Reason*, in the Thuringian forest, when other German young men were rallying to arms against Napoleon. This was accepted as a doctorate thesis at Jena. From 1814 to 1819 he lived in Dresden at work on *The World as Will and Idea*, which is the complete exposition of his doctrine. The work is divided into four parts: 1. Theory of Knowledge; 2. Description of the Forms of the Will; 3. Art as a Deliverance from the Will; 4. Morality as a Deliverance from the Will. In 1820 he got a position as Privat-docent in the University of Berlin. This was the only year of his teaching and was an utter failure.

3. *Period of Retirement* (1831–1860). In 1831 he went to Frankfort-on-the-Main to live alone and in retirement. Slowly he became known and gathered a little circle of disciples about him. He died in 1860.

The Influences upon Schopenhauer's Thought. The principal influences upon Schopenhauer's thought were three: (1) Kant, from whom he got his transcendental theory of knowledge (he always considered himself to be Kant's true heir); (2) Plato, from whom he got his formulation of eternal Ideas as offering an escape from the Will; (3) the Hindus, from whom he got his ethical-Mysticism and the confirmation of his pessimism.

Schopenhauer is unique among the philosophers of Europe, because he denied all for which the Enlightenment stood. Even such reactionaries against the Enlightenment as Rousseau were a part of its essential spirit ; for the presupposition of traditional theology and philosophy has been that existence is essentially a harmony. Schopenhauer, however, appealed to the discordances and the sorrow of existence, and drew the inference that fundamentally existence is irrational. For the source of Schopenhauer's unique teaching we have to look, therefore, farther than modern Europe. The preceding modern European philosophers whom we have studied, developed their philosophies from purely Occidental sources. Schopenhauer drew from the Orient as well as from the Occident. The Romanticists had re-discovered Orientalism. The study of the Hindus had been interesting European scholars since the beginning of the nineteenth century. Schopenhauer, who was introduced to Indian philosophy by Goethe's friend, Fr. Mayer, read the Upanishads in a Latin translation ; and they contributed much to the development of the theory which his own emotional and cynical nature had presaged. The Hindus had long felt that the main problem of existence is moral and physical evil. Schopenhauer found in this teaching the statement of his own attitude.

He esteemed the principles of Christianity and Buddhism because their central requirement was faith in a redeemer rather than a creator. Christianity had no original metaphysics, but Buddhism on account of its metaphysics had an especial importance in Schopenhauer's eyes. It was not only a pessimism, but a philosophy of pessimism. Our existence is only a blind struggle for enlightenment and arises out of a flowing

chain of perennial re-births. Man needs to be freed from the illusion of existence and released from re-birth.

The World as Will and the World as Idea. In *The Four-fold Root of the Principle of Sufficient Reason*, Schopenhauer summarizes knowledge as, "The world is my presentation," which is Kant's theory of knowledge. A conscious subject vitalizes all things. But the presentations have no corresponding reality in the outer world. They are created by my own subjectivity from the "principle of sufficient reason." This has a fourfold root: logic, cause, mathematics, and will-activity. "The world of phenomena is my idea," and in *The World as Will and Idea* Schopenhauer says, "This is a truth which holds good for everything that lives and knows." Man alone can reflect upon this truth. When man comes to the realizing sense that the world is an ideal construction, he begins to philosophize as to the nature of the reality behind it. We remember that Herbart started from the same proposition. However, Schopenhauer departs from Kant's teaching in one important respect: although he agrees with Kant that the thing-in-itself cannot be understood by ideas or a chain of reasoning, he holds that the thing-in-itself is knowable. The World as Idea is a world of appearances, but we can know the thing-in-itself by intuition — by "the look of genius." The certainty of this first-hand or immediate knowledge shows how poor our second-hand or mediate knowledge is. For even reasoned or mediate knowledge in its most perfect form, viz., science, is under the law of cause and can therefore reveal nothing absolute. Science never gets below phenomena.

If reason reveals only the World as Idea, what revelation does intuition give of the thing-in-itself?

Intuition reveals the thing-in-itself to be Will. Man finds, first, the Will to be in himself. He finds it objectified in his own body and in its members. All the members of the body are structures of some function. Every part is the visible expression of some desire. Hunger, speech, locomotion, have their different instruments. Will is immediately known to us as the reality in us. In spite of the exaltation of the reason by the modern Enlightenment, is it not secondary to Will?

For behold! Let me look beyond myself. The revelation of the reality within myself illuminates the reality of the outer world. My Will meets resistance in other things. The everlasting striving of the Will appears in all nature. It appears in the fall of a stone, the crystallizing of the diamond — in all the mechanical movements of matter. "The impulse with which waters hurry to the ocean," the persistence of the magnet for the pole, the perennial push of vegetation, the motivation of animals, show by an analogy stronger than any proof that the reality of the world is fundamentally Will. All nature is in reality the "World as Will." This Will is always one and the same. Only in the "World as Idea" do differences appear. Will is common to all and is the only reality. Differences are illusions, and the reason which exists only in man is one of those differences.

The World as Will and the World as Idea do not stand in the relation of cause and effect, but the World as Idea is the objectification of the World as Will. Will is to phenomena what essence is to expression. Will is the freedom that is within all things; and yet all things are determined when they have the form of ideas. There is only one Will, and so the world is in reality

a unity. In essence all things are the same — in appearance they are different. The Will has no content; it wills to will — to live — to be actual. In the pantheism of the Will the World as Idea is an illusion.

The Will as Irrational Reality. Before Schopenhauer's time European mysticism had been of one general type. However universal the character of illusory appearances had been to the European mystics, there had always been supposed behind the veil a rational reality. Indeed, the illusions themselves had been proof of the existence elsewhere of a governing reason. The mediæval churchman often preached a mysticism, and his exhortation to turn away from illusions of "the world, the flesh, and the Devil," was based upon the compensation to be found in Heaven and in God. The ineffable rest in the bosom of God was reason enough for averting the eyes from the passing show of sensuous things. Schopenhauer now presents to the Occident another type of mysticism, and in this there is no refuge from illusions. This conception had long been common enough in the Orient. The *Rubáiyát* of Omar Khayyám, written about 1100, represents fundamentally the attitude of the Persians of his time. "He is said to have been especially hated by the Sufis, whose practice he ridiculed, but whose faith amounts to little more than his own when stripped of the mysticism and formal recognition of Islamism." (FitzGerald.) But in Europe Schopenhauer's doctrine was unique, and he arrived at its construction by stripping mysticism of all its religious elements. Faith and belief are eliminated because they have no reality as their object. Reason produces only a world of illusory ideas; the Will is a reality, but it is a reality which is only a blind urgency — an

instinctive blind force. The essence of things is undirected striving. Life is the expression of the absolute unreason of the Will. It is a Will without an object. Nature is the objectification of the Will that perpetually creates itself and is forever unsatisfied, unresting, and unhappy.

“ A Moment’s Halt — a momentary taste
Of Being from the Well amid the Waste —
And Lo ! the phantom Caravan has reacht
The Nothing it set out from — Oh, make haste ! ” *

The Misery of the World as Idea — Pessimism. The fundamental irrationality of the Will reveals the absolute misery of the World as Idea. The despair of pessimism follows from the very nature of the Will; for it must be remembered that Schopenhauer’s pessimism does not merely mean that the appearances of life are illusory, but that reality itself is irrational. The World as Idea is the objectification of such misery. Willing has its source in want, and want arises from suffering. Moreover the proportion of our wants that are satisfied is very small. To one that is supplied there are many that are not. Furthermore, while our desires last long, their satisfaction is short and scanty, “like the alms thrown to a beggar that keeps him alive to-day that his misery may be prolonged to-morrow.” Our ever-springing wants make lasting peace impossible. The finite world is not adequate to the infinite craving which it contains, and there is no equation between the cares and the satisfactions of life. The greatest evil that can be-

* Read *Rubáiyát* of Omar Khayyám, FitzGerald’s translation, 4th ed., quatrains xlvii–lxxiii; Goethe, *Sorrows of Werther*, as an example of pessimism due mainly to environment.

fall a creature is to have been born ; and this is a thousand-fold worse in man than in any other. To live is to go from willing to attaining and then to willing again. Attainment means new striving, and the Will shows "the ache of the not-yet-satisfied." After all is said and done, satisfaction destroys not only the desire, but the satisfaction itself. There is no meaning in life. Pain is positive ; pleasure is negative, and is merely the absence of or respite from pain.

The Way of Deliverance. The relief from misery that Schopenhauer offers is tinged with the grim despair of life itself. It is an escape that he finds, rather than a haven — an escape that consists in giving up all that life means. Why not, then, give up life, since it is misery and torment ? But escape is not in suicide, for the act of taking one's own life is the performance of the greatest act of affirmation of the Will ; and in the Buddhistic doctrine the suicidal soul only passes by re-birth (metempsychosis) into another form of Will. Schopenhauer uses two phrases that have become classic in the description of the two attitudes possible to man : (1) if man is merely a part of the World as Idea he is "affirming the Will to life" ; and (2) if he seeks a way of deliverance he "is denying the Will to life." Suicide is an act of affirmation of the Will to life.

How may the Will be denied ? and since we are in essence Will, the question takes this form, How may the Will deny the Will ? This question presupposes a transcendental freedom which may be sought in two ways : one in which the freedom is temporary and the other in which it is permanent.

1. The temporary deliverance of the Will may be found in artistic contemplation (Schiller's disinterested

contemplation). Art deals not with particular forms, but eternal types (Platonic Ideas). Art isolates an eternal object from out the stream of the world's changes, and places it beyond all relations of time, place, and cause. Art not only removes its object from the World as Idea, but it removes the contemplator as well. The contemplating subject and the contemplated object thus become one, and the subject is temporarily saved, for he is elevated above all desire and pain. This, however, is possible not to the majority of men, but only to those few possessing æsthetic fancy, and for them only at intervals. Music is ranked by Schopenhauer as the highest form of art, — even above poetry, — and it is not surprising therefore that among the Schopenhauerian worshipers have been many prominent musicians.

2. But artistic ecstasy is too fleeting and restricted to offer lasting deliverance from the affirmation of the Will to life and the World as Idea. Another act of transcendental freedom will bring man into more complete freedom; but *this act is a miracle and a mystery*, since it is the complete transformation of our nature. This act must be supernatural, and the church is right in calling it a new birth and a work of grace. *Complete freedom from the Will comes through moral deliverance.*

This lasting escape from the Will is open to the man who appreciates two facts: that all striving for happiness is vain; and that all men are alike manifestations of the Will. To take this double view of life involves the feeling of sympathy with others in their misery. Sympathy is thus the only true moral motive and the fundamental ethical feeling. The Will in us is

moral if we feel another's hurt as our own. But sympathy is only a palliative, and it does not remove the cause of disease. The misery still exists, and our sympathy has only changed its form. Even though our sympathy goes out to the whole world, the endless tragedy would still pass on.

In the moral deliverance sympathy can be made complete by absolute denial, and this will come by asceticism, mortification, and complete eradication of want and desire. The Hindu *sannyasi* shows the way. This is the mystery of the Will. But Schopenhauer is not quite sure that extreme asceticism can be made effective, since we are full of Will. At the close of his work he says that even if we could be completely ascetic the result would be Nothingness. "In thy Nothing I hope to find the ALL." Schopenhauer despairs of deliverance for himself, but does not count it unachievable by others. Absolute deliverance even by asceticism seems impossible to him. The only hope is that through art and science the Will may be some time overcome.

CHAPTER XIII

THE PHILOSOPHY OF THE NINETEENTH CENTURY *

The Return to Realism. If the history of mankind had terminated with the nineteenth century, the last tendency of thought to be recorded would have been the return to Realism. The abbreviated account which follows of the philosophy of the nineteenth century will explain and illustrate this tendency. Before we set this forth, however, it may be well to define again the nature of Realism. What is Realism? In general it is the belief that reality or realities exist quite independent of anybody's knowing them. Moreover, Realism has the distinction of being one of the four great types of metaphysical thought. These types are Realism, Mysticism, Critical-rationalism, and Idealism.¹ In other words, Realism is an attitude of mind possible to a whole civilization. This is what is meant by a great philosophical type. The Idealism of the period which we have just studied is such a type. Although Germany had been the leading representative of Idealism, the spread of philosophical and literary Idealism had been world-wide. All nations had shared in it. But when the great events and the romancing spirit of that period

* Read Rand, *Modern Classical Philosophers*, pp. 703-708; Weber, *Hist. of Phil.*, §§ 69, 70; Eucken, *Problem of Human Life*, pp. 518-523, 524-553, 559-573; Nietzsche, *Also Sprach Zarathustra*; James, *Pragmatism*, Lectures I, IV, VII; Royce, *Spirit of Mod. Phil.*, Lecture IX.

¹ Royce, *The World and the Individual*, vol. i, pp. 60 f.

had passed, the reaction to Realism was likewise felt the world over. It is the period of this reaction that we are briefly to consider.

The Character of the Realism of the Nineteenth Century. We have already discussed the nature of the Realism of ancient civilization as it appeared in Plato's theory of Ideas; and we also have reviewed the variation of Plato's doctrine in mediæval times. Both ancient and mediæval societies give expression through Plato to Realistic conceptions — ancient society to an æsthetic Realism, mediæval to an ecclesiastical Realism. Now in the modern period we find a still different kind. *The Realism of the nineteenth century has been that of natural science.* The question of the nineteenth century has been, What degree of importance has the scientific conception of phenomena in our total conception of life? German Idealism had taken up the natural science of the Renaissance and the Enlightenment, and had made it a part of a world conceived as cosmic Reason. But in the nineteenth century the conception of the cosmic Reason and that of nature part company. The two conceptions begin to stand in antithesis. Nature is conceived as a reality existing in sublime independence. Democritus wins his victory over Spinoza. There are two reasons for this: (1) The ideas of science are expressed with a clearness and distinctness that is in marked contrast with the ideas of German romanticism. Natural science is formulated mathematically and demonstrated in experience, and natural science moreover does not require the labor of interpretation. (2) Natural science proves its usefulness, thereby responding to the imperative needs of the economic changes of the nineteenth century.

In this modern period the attention of man has been riveted upon his environment. If at any time the man of the nineteenth century has seemed to be interested in man, the interest has really been in man's relation to his environment. The nineteenth century has championed the necessary laws and mechanical structure of the outer world against man himself. The universe has been enthroned; man has become its serf. Human effort has become slave to its own progress. Work has been apotheosized — work in the outer world, work with the hands. Inventions in material things have multiplied. The nineteenth century has been the period of steam, of electricity, of machinery, of factories, of the enormous increase in the number and size of cities, of the minute division of labor. Social and economic rather than metaphysical problems have commanded attention. Not another and ideal world, but *this present world*, is the one in which the modern man has lived. The sciences have been specialized and man has become practical. Hegel would have said of our time that the cosmic Reason had been so engaged in concrete and external realities, that it had had no time to turn within and scrutinize itself. If one wishes to turn back the leaves of history for centuries similar to the nineteenth in their spirit, one will find them in the third and second centuries B. C. and the fourteenth and fifteenth of the present era. Nevertheless, there is this to be said about modern Realism in comparison with the Realism of preceding periods — the preceding Realism had been critical, negative in its practical results, and usually an opposition to tradition or a reaction from it; modern Realism has been distinguished by its positive practical results, its ambition for supremacy, and its shaping of the whole

direction of the life of man. It has assumed control of religion, art, and social morality, to the end of the well-being of the whole.

Modern Philosophy and German Idealism. The nineteenth century has been remarkable in the extent of its historical, literary, and scientific productions. It has been poor in its philosophical ideas, when we compare it with the preceding romantic movement of the German Idealists. To be sure, there has been much philosophical literature with a great variety of doctrine, but the many personally impressive structures have on the whole been only the re-shaping of former thought. It has sometimes seemed as if some of the philosophic doctrines of this time were about to take original shape; but none have ever reached it, with the possible exception of the doctrine of historical evolution.

The explanation of the uncreative character of modern thought is found in its relation to the Idealism which preceded it. The German Idealists had conquered the world of the spirit, but in spite of all their efforts the realm of empirical facts remained stubborn to all their romancing. Even Hegel, the greatest among them, had not succeeded in completely penetrating history by his dialectic law. Already in the eighteenth century a Realistic movement had been stirring in England and France, and had made notable achievements. So the Idealists turned to the study of the facts of life — partly in order to subordinate them to their Idealism, partly because a great interest had appeared in the study of the records of the past. The origin and history of religions, of law, of languages, of art, of institutions formed topics of study within the Romantic circle. A remarkable list of books was published by the Romanticists on these subjects

between the date of the battle of Waterloo (1815) and that of the death of Hegel (1831). After Hegel died no adequate successors in speculative power came to take the place of the old Idealistic leaders, but the interest in empirical science was borne on by many men of genius. The study of empirical phenomena was extended to all branches; biology and geology, which were late in being studied historically, began to occupy the centre of the stage. In spite of the fact that the nearness of modern philosophical theories blinds us to their true perspective, yet even now we can see that in comparison with the German Idealism the philosophical doctrines of the nineteenth century are partial in their survey of the field. The whole problem of life was before the eyes of the Idealists; the modern world about 1831 shifted its attention to a critical scrutiny of only one part of that problem. The philosophical problem to the Idealists was the problem of the cosmos; the philosophical problem to the nineteenth century was concerned only with a reëxamination of the environment of man.

The Philosophical Problems of the Nineteenth Century. In summarizing what we have above said, we have before us a situation something as follows. Idealism had run its course as a social attitude of mind, and about 1831 the leaders of Idealism had died with no one to fill their places. But within Idealism between 1815 and 1831 there had arisen a great empirical interest in the origins of history, law, philology, etc. Side by side with this empirical interest there had come certain economic conditions that had called forth and rewarded genius in natural science.

Thus we find even before the fourth decade of the

nineteenth century two strong tendencies: (1) a new conception of the meaning of history as an evolution from origins; and (2) a remarkable interest in the natural sciences. The two tendencies modified each other. The historical view of the world exercised a powerful influence upon natural science; natural science had to be reckoned with in the writing of history. History and natural science were drawn together, but without producing a new philosophical conception that would include them both.

From the interaction of these two powerful tendencies the great variety of philosophical interests were grouped around two general problems. These were (1) *The problem of the functioning of the soul*; (2) *The problem of the conception of history*.

1. The Problem of the Functioning of the Soul. With the decline of metaphysics and the reaction from speculation, psychology began to loosen from its anchorage in philosophy. Psychology, which had been a study of mind, now became the study of the relation of mind and body. The tendency was strong to make psychology an empirical science, and by the use of the methods of science to become a part of physiology and biology. Philosophy has been a nest in which all the sciences have been brooded. Psychology has been the last to attempt to leave the nest, and to-day in some of our large universities it is coördinated in the curriculum with the natural sciences. Deprived of a basis in philosophy, psychology turned to natural science for support. Concerning the relation of the soul to the body many solutions have been offered.

Following the Sensationalist, Cabanis, who died in 1808, some of the French Ideologists, so-called, con-

cluded that the soul is everywhere determined by physical influences, such as age, sex, temperament, climate, etc.; some said that the mind is a result of brain activity; some developed the conception of phrenology, according to which the shape of the skull determines the faculties of the mind. The French Ideologists differed widely in their interpretations, but on the whole the basis of the movement was materialism. The hypothesis of phrenology aroused great interest in England, but John Stuart Mill led the movement back to Hume's associational psychology. He conceived the psychical and the physical states as two separate realms, and he concluded that psychology as the study of the laws of mental states cannot reduce mental states to physical. So Sir William Hamilton, under the influence of Kant, championed the life of inner experience.

Of course the materialistic challenge of the soul aroused great heat in theological circles. The personality of God and the nature of the soul became burning questions, and led to the dissolution of the Hegelian school into "the right wing" and "the left wing." Hegel had always maintained his standing in orthodox circles as the Prussian "State philosopher." Those followers who composed the "right wing" tried to interpret his doctrine in accordance with the traditional theological conception of the soul; the "left wing" interpreted Hegel as a pantheist, in whose doctrine the soul could not be considered as a substance with immortality. Feuerbach followed this by inverting Hegelianism into a nominalistic materialism, and conceived the soul as nature "in its otherness." In 1854, at a convention of naturalists in Germany, the materialistic conception of the soul was found to be widely spread among the

German physicians and naturalists. But the contradiction between the inferences of science and "the needs of the heart" became a subject of controversy, and in 1860, under the leadership of Kuno Fischer, the "return to Kant" was begun, which lasted throughout the nineteenth century.

There are two names that stand out most prominently in relation to this controversy over the nature of the soul: they are those of Lotze (1817-1881) and Fechner (1801-1887). They are names that were conjured with by the generation of American scholars before the present. Lotze regarded the mechanical necessity of nature as the form in which the impulsive mental life of man realizes its purposes. Every soul therefore has a life that consists essentially in purposeful relations with other souls. And this is possible only if the lives of men are under an all-embracing Providence. Fechner chose another way to escape from the materialistic tendency. He regarded the soul and body as separate and qualitatively different, although exactly corresponding, manifestations of one unknown reality. There is a parallelism between the mental and the physical, in which the mental phenomena are known only to the individual perceiving them. As sensations are the surface waves of a total individual consciousness, so the consciousnesses of human beings are the surface waves of a universal consciousness. The mechanical activity of nature corresponds to the consciousness of God. We can investigate this correspondence by studying the correspondence between our own mental states and physical states. This is the modern well-known psychological method of psycho-physics. We can measure psychical quantities by formulating mathematical laws of their occurrence.

Our present psychology has seen a development from all these earlier explanations; but this is a matter of contemporary writing and not of history.

2. **The Problem of the Conception of History.** The contrast in the Kantian teaching between nature and mind became an antagonism in the nineteenth century. When psychology was no longer a purely mental science, social life in its historical development at first withstood the vigorous march of the natural science of the nineteenth century. But the inroads of science in psychology were duplicated in the field of sociology, and thus the problem of society was only the problem of the soul on a larger scale.

The first form that this problem took arose from the opposition in France between the traditional conception of society and that of the philosophy of the Revolution. The nineteenth century French philosophy has, however, a religious coloring that differentiates it from that of the Revolution. Auguste Comte * (1798–1857) stands as the chief representative of this scientific reduction of society. He pushed the doctrines of Hume and Condillac to their extreme in his positivist system of social science. He maintained that human knowledge had as its objects phenomena in their reciprocal relations, but that there is nothing absolute at the basis of these phenomena. The only absolute principle is, All is relative. There is a hierarchy of sciences in which sociology is highest. Sociology includes all the preceding sciences, and yet it is the original fact. The first social phenomenon is the family. The stages of the development of society are (1) theological, (2) metaphysical,

* Read Rand, *Modern Classical Philosophers*, pp. 672–689.

and (3) positivistic or scientific. All mental life in detail, and human history as a whole, are subject to these stages of growth. In the positivistic stage mankind will be the object of religious veneration, and the lives of great men will be justified because they have raised the lives of common men. The democracy to which Comte looks is one ruled by great minds, and is not a socialism. In contrast to Comte's theory is that of Buckle, who would study history by discovering the mechanical laws governing society.

While human history was thus being invaded by natural science and had to defend its autonomy against the naturalistic principle of science, natural science on the other hand was in the nineteenth century invaded by the historical principle of evolution. Natural science becomes a history. We have seen that in the Romantic circle there was great interest in the origin and development of law, philology, art, etc. In the beginning and middle of the nineteenth century this interest spread to an investigation of the origin of animal life. This investigation has been the most notable in this century, because (1) it included in its scope the source and means of progress of the human race; and because (2) it advanced a new conception of development. Development now becomes evolution. Up to the nineteenth century the world was looked upon as a graded series of types, but no type was supposed to evolve into another. (See vol. i, pp. 180, 193; vol. ii, p. 306.) The theory of historical evolution of the nineteenth century is notable because it advanced the conception, based upon empirical investigation, that types are changed into others. This theory, among those of the century,

comes the nearest to an original philosophical doctrine. The book that became the centre of scientific interest for many years was Darwin's *Origin of Species*, published in 1859. The name most prominently linked with that of Darwin is that of Herbert Spencer, who attempted to make universal the principle of development and to formulate its law.

The modern theory of the historical evolution of animal life has reinforced the mechanical principle of nature, which had its origin in the minds of the philosophers of the Renaissance. It has antagonized the theological doctrine of creation; it has related the animal and man by filling in the supposedly impassable gulf between them; it has advanced the doctrine of chemical synthesis against the hylozoistic notion of a vital principle; it has pushed forward with great assurance its theories of transformation and equivalence of forces, and of the action of electricity as a substitute for thought-activity; it has shown a wonderful parsimony in giving a value to all the facts of history which had hitherto been conceived as trivial; and on the other hand it has reduced the conception of mighty cosmic cataclysms to a geological series of gradual gradations. Darwin's place in this movement of the nineteenth century was this: he tried to show that animal life can be explained without the aid of final causes. In other words, the adaptation of the structure of animals can be accounted for mechanically. The factors involved in the development of organic life upon the earth were, according to Darwin, infinite differentiation, adaptation, natural selection, and the survival of the fittest.

Now at the beginning of the twentieth century there seems to be a reaction from the scientific positivism of the last century. This has taken the form of an extravagant mysticism, although at heart it is an optimism and an idealism.

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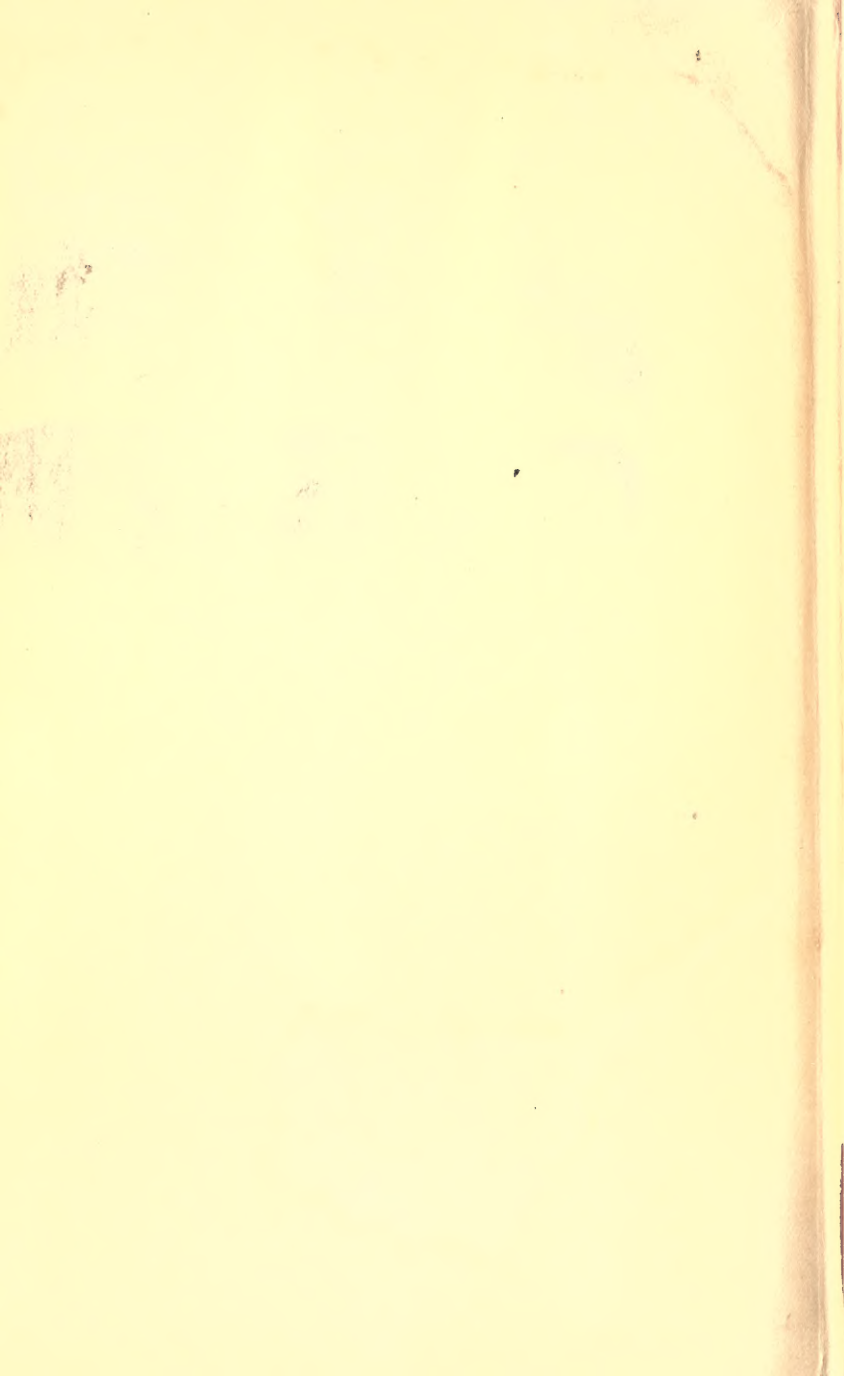
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